Section 5—Final Environmental Impact Statement

APPENDIX M DRAFT STREAM ASSESSMENT REPORT

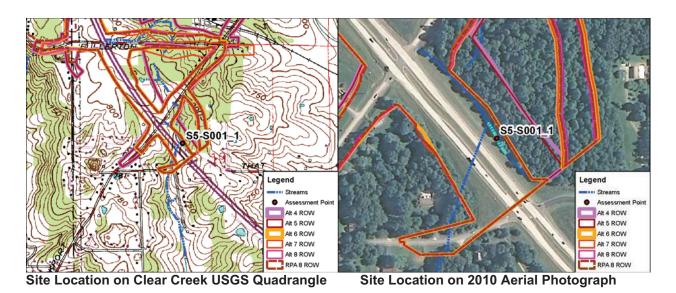
TECHNICAL REPORT APPENDICES

APPENDIX A Stream Impacts and

Stream Relocation Lengths by Alternative

APPENDIX B Stream Site Reports and

Data Sheets



Aquatic Resource: Stream USGS Quadrangle: Clear Creek

Stream Name: Unnamed Trib. Clear Creek Section: 19

 Quarter:
 NW
 Township:
 T8N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120208090
 OHWM Width:
 2.0 feet

Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet
Stream Type: Ephemeral USCOE Jurisdiction: No
Evaluation Type: HHEI IDEM Jurisdiction: No

Evaluation Score: 12 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1763704 ft **UTMN**: 14205286 ft

Stream S5-S001_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	188	0.01	0.12	
5	188	0.01	0.12	
6	188	0.01	0.00	
7	188	0.01	0.00	
8	188	0.01	0.00	
RPA 8	188	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S001_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the left bank and new field on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001_1 are on the second page of this form.



Photograph Taken Upstream

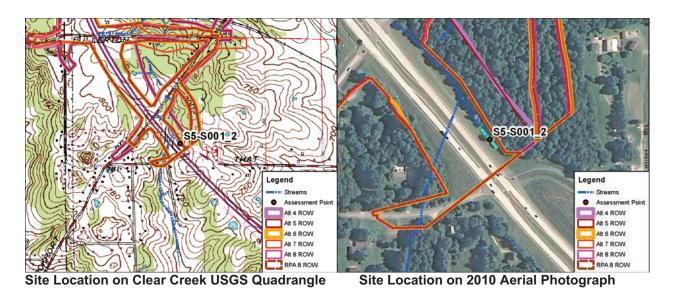




SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S001_1 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 188 LAT. 39.11637 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.56532) (Concrete Gutter-Modified Class	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Point
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts] O%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ ARTIFICIAL [3 pts] ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	7
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 100% (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	mux - o
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
	-
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfu Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW = 2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.61	5
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field —— Open Pacture Pow Cro	nn
Narrow <5m Residential, Park, New Field D	Α.
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	_
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
✓ None □ 1.0 □ 2.0 □ 3.0 □ 3.0 □ 0.5 □ 1.5 □ 2.5 □ >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATI	ON (This Information Must Als	o be Completed):		S5-S001_1
QHEI PERFORMED? -	Yes ✓ No QHEI Score	(If Yes, Atta	ach Completed QHEI Form)	
DOWNSTREAM DESIGNA		(,	
WWH Name: Clear Creek	41 LD 03L(3)		Distance from Evaluated Stream	2.20
CIANLAL			Distance from Evaluated Stream	
EWH Name:			Distance from Evaluated Stream	
MAPPING: ATTACH COPI	ES OF MAPS, INCLUDING THE E	NTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE	E LOCATION
USGS Quadrangle Name: Clear Cre	eek	NRCS Soil Map F	Page: NRCS Soil Map Stre	eam Order
County: Monroe	Towr	ship / City: Perry		
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_Y	_ Date of last precipitation:_	04/19/12	Quantity: 0.20	
Photograph Information:				
Elevated Turbidity? (Y/N): N	Canopy (% open):100)%		
Were samples collected for water ch	emistry? (Y/N): N (Note la	ab sample no. or id.	and attach results) Lab Number:	
Field Measures: Temp (°C)	Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach representative	of the stream (Y/N) Y If no	t, please explain:		
Additional comments/description of p	oollution impacts:			
ID nu	mber. Include appropriate field da her? (Y/N) N Salamanders	ta sheets from the Pr	II. NOTE: all voucher samples must be imary Headwater Habitat Assessment Voucher? (Y/N) Ites Observed? (Y/N) Vouche	Manual)
DRAWING AND NA	ARRATIVE DESCRIPTION	OF STREAM F	REACH (This <u>must</u> be comp	oleted):
Include important landmarks	and other features of interest fo	or site evaluation ar	nd a narrative description of the st	ream's location
	See Stream Asses			
_	S5-S001_1 for s	ite topogra	aphic map,	
FLOW	aerial photograp	ph, and res	source photographs	}

Reset Form



Aquatic Resource: Stream USGS Quadrangle: Clear Creek

Stream Name: Unnamed Trib. Clear Creek Section: 19

Quarter: NW Township: T8N Range: R1W IDEM 303(d) List: N/A

OHWM Width: Watershed: 05120208090 1.3 feet Channelized/Type: Yes/Roadside Ditch OHWM Depth: 0.9 feet Stream Type: **USCOE Jurisdiction:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No

Evaluation Score: 17 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Sand/silt

UTME: 1763808 ft **UTMN**: 14205142 ft

Stream S5-S001_2 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	144	0.01	0.25	
5	144	0.01	0.25	
6	144	0.01	0.00	
7	144	0.01	0.00	
8	144	0.01	0.00	
RPA 8	144	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S001_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The roadside ditch is located within existing INDOT ROW. This ditch flows to S5-S001_1. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the left bank and new field on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001_1 are on the second page of this form.

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Photograph Taken Upstream

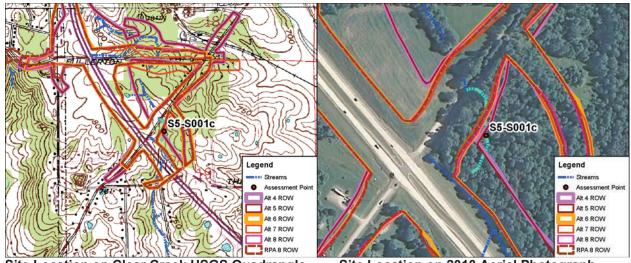


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NAME/LOCATION 1 00 000011 0	0.01
LENGTH OF STREAM REACH (ft) 144 LAT. 39.11597 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.56495) (Roadside Ditch-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ O%	12
Total of Percentages of 5 00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [5 pts] > 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' AVERAGE BANKFULL WIDTH (meters): 0.40	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Riv	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.40	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field Penced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.40 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH Wide >10 m (Most Predominant per Bank) Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.3'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek NW

Range: R1W
Watershed: 05120208090
Channelized/Type: No/Natural
Stream Type: Ephemeral
HHEI
HHEI

Evaluation Score: 33 Legal Drain (Y/N): N

UTME: 1763622 ft **UTMN**: 14205856 ft

USGS Quadrangle: Clear Creek

Section: 19 Township: T8N IDEM 303(d) List: N/A **OHWM Width:** 6.6 feet OHWM Depth: 0.3 feet **USCOE** Jurisdiction: No **IDEM Jurisdiction:** Yes Watershed Area: 0.04 sq mi

Watershed Area: 0.04 sq mi
Predominant Sub: Sand/leaf pack

Stream S5-S001c – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	411	0.06	1.56	
5	408	0.06	1.55	
6	226	0.03	0.82	
7	172	0.03	0.64	
8	223	0.03	0.81	
RPA 8	209	0.03	0.76	

Description of Potential Impact:

Impacts to S5-S001c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This is an isolated resource. The substrate is predominately sand and leaf pack. There is a wide riparian buffer associated with this stream. The floodplain consists of mature forests on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001c are on the second page of this form.



Photograph Taken Upstream



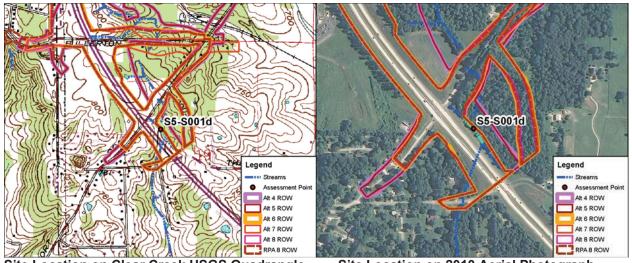
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S001c RIVER BASIN White River DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.11793 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.56560) Isolated (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to This Field Evaluation Ohio PhWH Streams of This Field Evaluation Ohio PhWH Strea	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 10%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0%	13
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 5.00% (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
5. BANK FOLL WIDTH (Measured as the average of 5-4 measurements) (Check ONLY one box).	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' AVERAGE BANKFULL WIDTH (meters): 2.01	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 2.01 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ARIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Narrow <5m Narrow <5m Narrow Field P1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 10 m (>=3' 3") [5 pts] X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking downstream Riparity X NOTE: River Left (L) and Right (R) as looking do	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Viv Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS None Fenced Pasture Mining or Construction COMMENTS	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5 m Residential, Park, New Field Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS X	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] COMMENTS OHW = 6.6'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Mature Forest, Shrub or Old Field Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0	Width Max=30 20 Crop n nt)

ADDITIONAL STREAM INFORMATION (This Information Must	Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Clear Creek	Distance from Evaluated Stream 2.32
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING TH	E ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe To	ownship / City:Perry
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation:	04/19/12 Quantity: 0.20
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open):	15%
Were samples collected for water chemistry? (Y/N): (Not	e lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N) If	not, please explain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field Fish Observed? (Y/N) N Salamande	ucher collections optional. NOTE: all voucher samples must be labeled with the site data sheets from the Primary Headwater Habitat Assessment Manual) rs Observed? (Y/N) N Voucher? (Y/N) N Vouc
	ON OF STREAM REACH (This must be completed): It for site evaluation and a narrative description of the stream's location Sment Form
	e topographic map, n, and resource photographs





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek

HHEI

Quarter: NW Range: R1W Watershed: 05120

Watershed: 05120208090
Channelized/Type: Yes/Roadside Ditch
Stream Type: Ephemeral

Evaluation Score: 17 Legal Drain (Y/N): N

Evaluation Type:

UTME: 1763562 ft **UTMN**: 14205512 ft

USGS Quadrangle: Clear Creek

Section: 19 Township: T8N IDEM 303(d) List: N/A **OHWM Width:** 2.0 feet OHWM Depth: 0.5 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.02 sq mi

Watershed Area: 0.02 sq mi Predominant Sub: Silt/sand

Stream S5-S001d – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	312	0.01	0.14	
5	312	0.01	0.14	
6	312	0.01	0.05	
7	312	0.01	0.04	
8	312	0.01	0.05	
RPA 8	312	0.01	0.04	

Description of Potential Impact:

Impacts to S5-S001d for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. There is a no riparian corridor on either bank where the Alternatives cross this ditch. The floodplain consists of existing INDOT ROW and new field. This ditch flows into a culvert under SR 37 (S5-S001e). Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001d are on the second page of this form.



Photograph Taken Upstream



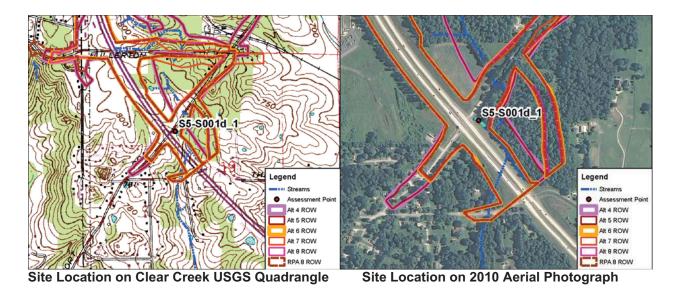
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S001d RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.11699 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.56582) (Roadside Ditch-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 1% SILT [3 pt] 60%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	12
Total of Percentages of 1 000/. (A) Substrate Percentage (B)	A+B
Bldr Slabs, Boulder, Cobble, Bedrock	^.b
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
2 DANK FULL WIDTH (Macaused on the guarant of 2.4 macausements) (Check ONI V are how):	Ponkful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
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> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.61 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.61 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Wide >10m Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m Narrow <5m Narrow <5m Fenced Pasture Fenced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS **1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] **2 1.0 m (<=3' 3") [5 pts] **3.10 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] **3.10 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] **3.10 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] **3.10 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] **3.10 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] **3.10 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] **3.10 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] **3.10 m (-2 3' 3") [5 pts]	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3" - 4' 8") [15 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY □ (Per Bank) □ R (Most Predominant per Bank) □ R (Per Bank) □ Mature Forest, Wetland □ Conservation Tillage □ Moderate 5-10m □ Mature Forest, Wetland □ Conservation Tillage □ Marrow <5m □ Residential, Park, New Field □ Open Pasture, Row C □ Narrow <5m □ Residential, Park, New Field □ Open Pasture, Row C □ None □ Fenced Pasture □ Mining or Construction COMMENTS □ Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None □ 1.0 □ 2.0 □ 3.0	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Complete	eted):
QHEI PERFORMED? - Yes No QHEI Score (If Y	es, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Clear Creek	_ Distance from Evaluated Stream2.20
CWH Name: _	_ Distance from Evaluated Stream _
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATE	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
	il Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City:	Perry
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:04/19/12	2 Quantity: 0.20
Photograph Information:	
Elevated Turbidity? (Y/N): _N Canopy (% open):100%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no	o. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) PH (S	S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please expl	lain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
· , — · · · · · · · · · · · · · · · · ·	optional. NOTE: all voucher samples must be labeled with the site
	n the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y	//N) Voucher? (Y/N) Voucher? (Y/N) N Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STRE	EAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evalua	ation and a narrative description of the stream's location
•	,
See Stream Assessment Form	
S5-S001d for site topographic	c map,
aerial photograph, and resour	_
FLOW →	





Aquatic Resource: Stream USGS Quadrangle: Clear Creek

Stream Name:Unnamed Trib. Clear CreekSection:19Quarter:NWTownship:T8NRange:R1WIDEM 303(d) List:N/A

Watershed: 05120208090 OHWM Width: 5.0 feet
Channelized/Type: Yes/Dump Rock Gutter OHWM Depth: 0.2 feet

Stream Type:EphemeralUSCOE Jurisdiction:NoEvaluation Type:HHEIIDEM Jurisdiction:No

Evaluation Score: 22 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1763351 ft **UTMN**: 14205718 ft

Stream S5-S001d_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	146	0.02	0.20	
5	146	0.02	0.20	
6	146	0.02	0.19	
7	146	0.02	0.18	
8	146	0.02	0.19	
RPA 8	146	0.02	0.19	

Description of Potential Impact:

Impacts to S5-S001d_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the left bank and new field on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001d_1 are on the second page of this form.

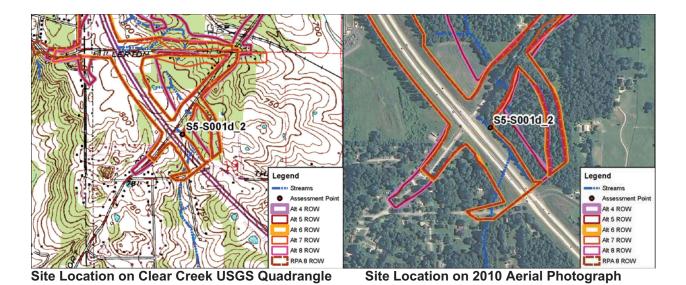






SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S001d_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 145 LAT. 39.11756 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.56656) (Dump Rock Gutter-Modified	Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 4.9'/0.2' AVERAGE BANKFULL WIDTH (meters): 1.49	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
☐ Wide >10m ☐ Mature Forest, Wetland ☐ Conservation Tillage ☐ Moderate 5-10m ☐ Immature Forest, Shrub or Old ☐ ☐ Urban or Industrial	
Field Field	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr	ор
✓ ✓ None ☐ Fenced Pasture ☐ Mining or Construction COMMENTS	l
	L
	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent	:)
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):)]
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS The control of Evaluation (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent of Dry channel, no water (Ephemeral))	-) <u>1</u>
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Ory channel, no water (Ephemeral)	-)]
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	1
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	1





T8N

Aquatic Resource: Stream USGS Quadrangle: Clear Creek Stream Name: Unnamed Trib. Clear Creek Section: 19

Stream Name: Unnamed Trib. Clear Creek Quarter: Section: Township:

Range: R1W IDEM 303(d) List: N/A **OHWM Width:** Watershed: 05120208090 2.0 feet Channelized/Type: Yes/Roadside Ditch OHWM Depth: 0.5 feet Stream Type: **USCOE Jurisdiction:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:**

Evaluation Type:HHEIIDEM Jurisdiction:NoEvaluation Score:17Watershed Area:0.02 sq miLegal Drain (Y/N):NPredominant Sub:Silt/Sand

UTME: 1763440 ft **UTMN**: 14205632 ft

Stream S5-S001d_2 – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	70	0.01	0.43
5	70	0.01	0.43
6	70	0.01	0.01
7	70	0.01	0.01
8	70	0.01	0.01
RPA 8	70	0.01	0.01

Description of Potential Impact:

Impacts to S5-S001d_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a roadside ditch located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the right bank and new field on the left. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001d 2 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

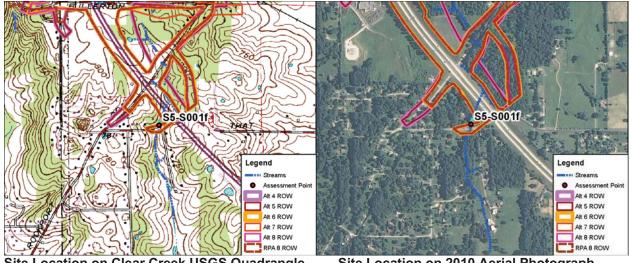


Primary Headwater Habitat Evaluation Form

17

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 S5-S001d_2 RIVER BASIN White River SITE NUMBER DRAINAGE AREA (mi²) 0.02 70 LAT. **39.11732** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.56624) (Roadside Ditch-Modified Class I) DATE 02/19/13 SCORER DEW NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 60% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 12 39% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 1.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: 3 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.0'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek Quarter: NW Range: R1W

Watershed: 05120208090 Channelized/Type: No/Natural **Stream Type:** Intermittent **Evaluation Type:** HHEI **Evaluation Score:** 65

Legal Drain (Y/N): Ν

UTME: 1763461 ft **UTMN:** 14204827 ft

USGS	Quadrangle:	Clear	Creek
0000	adda di gioi	Olodi	0.00.0

Section: 19 Township: T8N IDEM 303(d) List: N/A OHWM Width: 4.9 feet OHWM Depth: 1.0 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.08 sq mi Sand/gravel **Predominant Sub:**

Stream S5-S001f – Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	25	0.01	0.15
5	25	0.01	0.14
6	25	0.01	0.14
7	25	0.01	0.14
8	25	0.01	0.14
RPA 8	25	0.01	0.14

Description of Potential Impact:

Impacts to S5-S001f for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a narrow riparian corridor along the left bank while the right bank has a wide riparian buffer. The floodplain consists primarily of immature forest on the right bank and maintained INDOT ROW adjacent to the left bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001f are on the second page of this form.



Photograph Taken Upstream



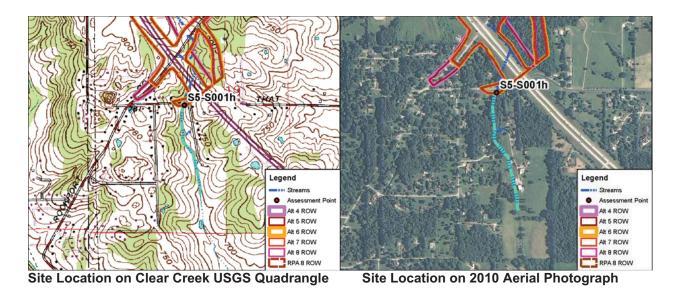
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S001f RIVER BASIN White River DRAINAGE AREA (mi²)	.08
LENGTH OF STREAM REACH (ft) 184 LAT. 39.11511 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56618) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC MODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 2%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt]	Max = 4
GRAVEL (2-64 mm) [9 pts] 30% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 60% ARTIFICIAL [3 pts] 0%	20
Ortito (42 min) [o pto]	
Total of Percentages of 5.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	20
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	30
COMMENTS MAXIMUM POOL DEPTH (centimeters): 28	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check <i>ONLY</i> one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 4.9'/1.0' AVERAGE BANKFULL WIDTH (meters): 1.49	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field — Open Pasture Pow Cr	OD
Narrow <5m Residential, Park, New Field J	
None Fenced Pasture Mining or Construction COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Cube unificate flavourists in a late of months (Internatistics))
Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS_	-
COMMENTS	-
	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 0.5 1.5 2.5	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	

ADDITIONAL STREAM INF	FORMATION (This Information Must Also be Completed):
QHEI PERFORM	IED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
	DESIGNATED USE(S)
WWH Name: Clear Cro	
CWH Name:	Distance from Evaluated Stream _
EWH Name:	Distance from Evaluated Stream
	ACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
JSGS Quadrangle Name:	
County: Monroe	Township / City: Perry
MISCELLANEOU	JS
Base Flow Conditions? (Y/N	N): Y Date of last precipitation: 05/12/06 Quantity: 0.39
Photograph Information:	
Elevated Turbidity? (Y/N): _	N Canopy (% open):
Vere samples collected for	r water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
· Field Measures: Temp (
	Y
s the sampling reach repre	esentative of the stream (Y/N) If not, please explain:
Additional comments/descr	ription of pollution impacts:
PIOTIC EVALUA	ATION
BIOTIC EVALUA	ATION
Performed? (Y/N):	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with th ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
N	
Fish Observed? (Y/N)	_ Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) N
Comments Regarding Biolo	
DRAWING	AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important la	ndmarks and other features of interest for site evaluation and a narrative description of the stream's location
	See Stream Assessment Form
_	S5-S001f for site topographic map,
_	aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Clear Creek Stream Name: Unnamed Trib. Clear Creek Section: 19

Quarter: SW Township: T8N Range: R1W IDEM 303(d) List: N/A

OHWM Width: Watershed: 05120208090 4.9 feet Channelized/Type: No/Natural OHWM Depth: 1.0 feet Stream Type: Intermittent **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 65 Watershed Area: 0.08 sq mi
Legal Drain (Y/N): N Predominant Sub: Sand/gravel

UTME: 1763438 ft **UTMN**: 14204690 ft

Stream S5-S001h – Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	34	0.01	0.03
5	34	0.01	0.03
6	34	0.01	0.03
7	34	0.01	0.03
8	34	0.01	0.03
RPA 8	34	0.01	0.03

Description of Potential Impact:

Impacts to S5-S001h for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a narrow riparian corridor along the right bank while the left bank has a moderately wide riparian buffer. The floodplain consists primarily of immature forest on the left bank and residential yard adjacent to the left bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S001h are on the second page of this form.



Photograph Taken Upstream



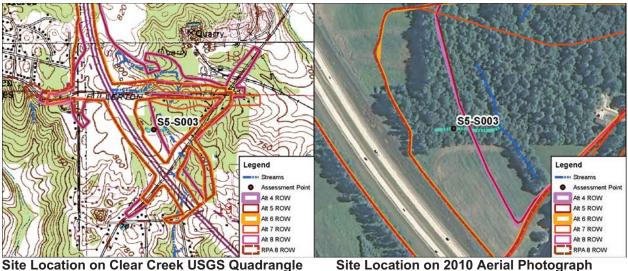
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S001h RIVER BASIN White River DRAINAGE AREA (mi²)	0.08
LENGTH OF STREAM REACH (ft) 200 LAT. 39.11473 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56627) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL PRECOVERED RECOVERING RECENT OR NO RECOVERING RECOVERING RECENT OR NO RECOVERING RECENT OR NO RECOVERING RECOVE	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 2%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ O% ☐ ☐ ARTIFICIAL [3 pts] ☐ O% ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	20
Total of Percentages of 5.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	^.5
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] > 5 cm - 10 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	30
COMMENTS MAXIMUM POOL DEPTH (centimeters): 28	
2 PANK FILL WIDTH (Maggired as the gyarage of 2.4 maggirements) (Check ON V and box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check <i>ONLY</i> one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 4.9'/1.0' AVERAGE BANKFULL WIDTH (meters): 1.49 This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 4.9'/1.0' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 4.9'/1.0' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 4.9'/1.0' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Mature Forest, Shrub or Old Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 4.9'/1.0' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Moderate 5-10m Narrow <5m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 4.9'/1.0' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 4.9'/1.0' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): I .49 This information must also be completed RIPARIAN WIDTH (meters): RIPARIAN WIDTH (mete	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] COMMENTS OHW 4.9'/1.0' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 3.0 3.0 3.0 3.0 3.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30 15 Top

ADDITIONAL STREAM INFORMATION (This Information M	ust Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Sco	re (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe	Township / City: Perry
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation	ion: 05/12/06 Quantity: 0.39
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): _	25%
Were samples collected for water chemistry? (Y/N):	(Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:
Additional comments/description of pollution impacts:	<u> </u>
ID number. Include appropriate	Voucher collections optional. NOTE: all voucher samples must be labeled with the site field data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N) N Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N)	Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRI	PTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of int	erest for site evaluation and a narrative description of the stream's location
aerial photogr	sessment Form site topographic map, raph, and resource photographs
FLOW T	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Clear Creek

Stream Name: Unnamed Trib. Clear Creek Section: 19 Quarter: NW Township: T8N

Range: R1W IDEM 303(d) List: N/A **OHWM Width:** 2.6 feet Watershed: 05120208090 Channelized/Type: No/Natural OHWM Depth: 0.6 feet Stream Type: Ephemeral **USCOE Jurisdiction:** No **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes 39 Watershed Area:

Evaluation Score: 0.01 sq mi **Predominant Sub:** Sand/gravel Legal Drain (Y/N): Ν

UTMN: 14206615 ft **UTME:** 1762978 ft

Stream S5-S003 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	185	0.01	0.92
5	188	0.01	0.93
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S003 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. Along with S001a, S5-S003 is an isolated resource. The substrate is predominately sand and gravel. There is a moderately wide riparian buffer associated with this stream. The floodplain consists of mature forests on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S003 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



39

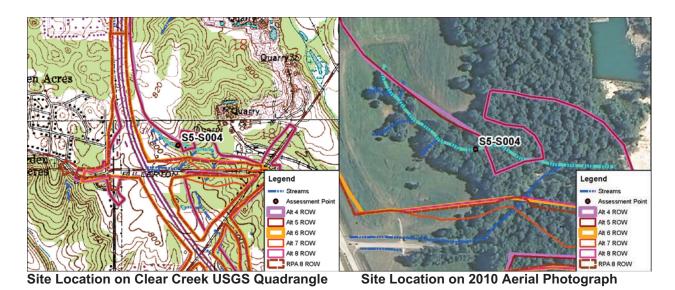
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S003 RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12003 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56786) Isolated (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 30% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	19
Total of Percentages of 0.00% (A) Substrate Percentage Check 100%	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	4.5
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts]	Width Max=30
COMMENTS OHW - 2.6' / 0.6' AVERAGE BANKFULL WIDTH (meters): 0.79	5
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m V Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Pasture Row Cro	qu
Residential, Park, New Field	•
None Fenced Pasture Mining or Construction COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS Stated pools (Interstated)	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 2.0 3.0 3.0 0.5 1.5 2.5 3	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10)O ft)

	S5-S003
ADDITIONAL STREAM INFORMATION (This Information N	lust Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Sco	ore(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Clear Creek	_ Distance from Evaluated Stream
CWH Name: _	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING	G THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek	NRCS Soil Map Page: 37 NRCS Soil Map Stream Order
County: Monroe	Township / City: Perry
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_N Date of last precipitat	tion: 05/12/06 Quantity: 0.39
Photograph Information: 165 Upstream / 166 Downstream	/ 167 Right Bank / 168 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open):	E00/
N	(Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (m	
Is the sampling reach representative of the stream (Y/N) Y	If not, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
· / — · · · · · · · · · · · · · · · · ·	. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit
ID number. Include appropriate	e field data sheets from the Primary Headwater Habitat Assessment Manual)
· /——	anders Observed? (Y/N) Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N)	Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
	
DRAWING AND NARRATIVE DESCRI	IPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of in	terest for site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S003 for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Clear Creek

Stream Name: Unnamed Trib. Clear Creek Section: 18

 Quarter:
 SW
 Township:
 T8N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120208090
 OHWM Width:
 3.3 fe

Watershed:05120208090OHWM Width:3.3 feetChannelized/Type:No/NaturalOHWM Depth:0.6 feetStream Type:EphemeralUSCOE Jurisdiction:YesEvaluation Type:HHEIIDEM Jurisdiction:YesEvaluation Secret70Wetershed Area:0.05 cg leg

Evaluation Score:79Watershed Area:0.05 sq miLegal Drain (Y/N):NPredominant Sub:Bedrock

UTME: 1762978 ft **UTMN**: 14206615 ft

Stream S5-S004 – Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	1140	0.09	4.14
5	1149	0.09	4.13
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S004 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate of is bedrock and boulder slabs. There is a narrow riparian corridor on both banks where Alternatives 4 and 5 cross this headwater stream. The floodplain consists primarily of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S004 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

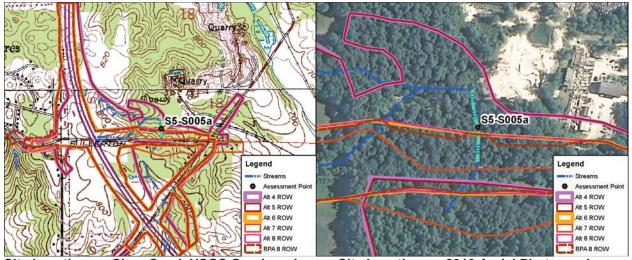


SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S004 RIVER BASIN White River DRAINAGE AREA (mi²) 0	.05
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12356 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56866) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BOULDER (>256 mm) [16 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 5%	Point
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] Style="background-color: blue;">0% I LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	39
Table (Percentage)	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 32 TOTAL NUMBER OF SUBSTRATE TYPES: 7	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Wax - 3
→ > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	25
	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 11	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13) [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 3.3' / 0.6' AVERAGE BANKFULL WIDTH (meters): 1.01	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5-10m Moderate 5-10m Moderate 5-10m NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Conservation Field)D
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) I R (Conservation Tillage Immature Forest, Shrub or Old Immature Forest, Shrub or Old Field V Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	qc
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Conservation Field	qc
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m None None Residential, Park, New Field RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominan	op -
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Check ONLY one box): Stream Flowing NOTE: River Left (L) and Right (R) as looking downstream ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ Residential, Quality Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermittent)	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Done Bank) L R (Most Predominant per Bank) L R (Done Bank) L R (Most Predominant per Bank) L R (Done Bank) L R (Most Predominant per Bank) L R (Done Bank) L R (Do	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as lo	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) PLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Righ	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as lo	-) <u> </u>

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) VWWH Name: Clear Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek NRCS Soil Map Page: 37 NRCS Soil Map Stream Order 1
County: Monroe Township / City: Perry
MISCELLANEOUS Rase Flow Conditions 2 (V/N): N Date of last precipitation: 05/12/06 Quantity: 0.39
Base Flow Conditions: (TM) Bate of last production Quantity
Photograph Information: 173 Upstream / 174 Downstream / 175 Right Bank / 176 Left Bank
Elevated Turbidity? (Y/N): Canopy (% open):30%
Were samples collected for water chemistry? (Y/N): Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form
S5-S004 for site topographic map,

aerial photograph, and resource photographs





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek Quarter: SW

Range: R1W Watershed: 05120208090 Channelized/Type: No/Natural Stream Type: Ephemeral

Evaluation Type: HHEI **Evaluation Score:** 26 Legal Drain (Y/N): Ν

UTMN: 14207613 ft **UTME:** 1763486 ft

USGS Quadrangle: Clear Cre	ek
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Section: 18 Township: T8N IDEM 303(d) List: N/A **OHWM Width:** 4.0 feet OHWM Depth: 1.0 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Predominant Sub: Sand/leaf pack

Stream S5-S005a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	379	0.03	1.30
5	379	0.03	1.30
6	143	0.01	0.66
7	0	0.00	0.00
8	142	0.01	0.66
RPA 8	142	0.01	0.61

Description of Potential Impact:

Impacts to S5-S005a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate of S5-S005a is predominantly sand and leaf pack. There is a wide riparian corridor on both banks of the The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S005a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



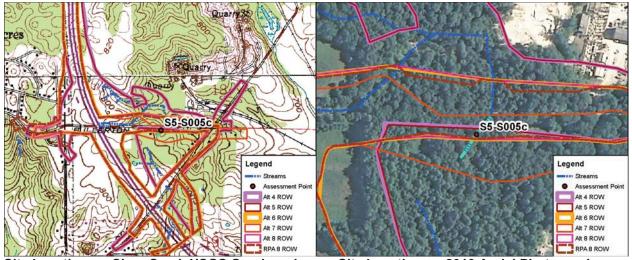
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S005a RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12276 LONG. RIVER CODE RIVER MILE	
DATE 10/10/11 SCORER DEW/KSS COMMENTS (Long: -86.56605) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] BEDROCK [16 pt] BEDROCK [16 pt] BEDROCK [16 pt]	Substrate Max = 40
COBBLE (65-256 mm) [12 pts]	Wax - 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	11
Total of Percentages of Oney (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 5.00% SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 2	A . 5
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	l
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	O
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	IVIAX-30
COMMENTS OHW - 4' / 1' AVERAGE BANKFULL WIDTH (meters): 1.22	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	
RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Pasture Row Cr	qc
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Mos	qc
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Pasture Row Cr	- qc
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None RIPARIAN WIDTH L R (Most Predominant per Bank) L R (Mo	-
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m None COMMENTS Fenced Pasture Fenced Pasture Comparison of the comparison of t	_
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m None COMMENTS Fenced Pasture Fenced Pasture Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermittent)	_
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): COMMENTS L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Urban or Industrial Open Pasture, Row Cre Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	_
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Wetland Immature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest	_
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Vetland Immature Forest,	_
RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, We)]

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S005a
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Att	tach Completed QHEI Form)
	,
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	ED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek NRCS Soil Map	Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Perry	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last precipitation:	Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
Flows only during storm events.	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections option.	al. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the P	rimary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N) N Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	, 1 _N , /
	· · · · · · · · · · · · · · · · · · ·
DRAWING AND NADRATIVE DESCRIPTION OF STREAM	DEACH (This must be completed):
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	
Include important landmarks and other features of interest for site evaluation a	ma a namauve description of the sheam's location
See Stream Assessment Form	

FLOW -

S5-S005a for site topographic map, aerial photograph, and resource photographs





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek Quarter: NW Range: R1W

Legal Drain (Y/N):

Watershed: 05120208090 Channelized/Type: No/Natural Stream Type: Ephemeral **Evaluation Type:** HHEI **Evaluation Score:** 26

UTMN: 14207296 ft **UTME:** 1763402 ft

Ν

USGS Quadrangle: Clear Creek

Section: 19 Township: T8N IDEM 303(d) List: N/A **OHWM Width:** 4.0 feet OHWM Depth: 1.0 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Predominant Sub: Sand/leaf pack

Stream S5-S005c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	74	0.01	0.28
5	83	0.01	0.32
6	151	0.01	0.62
7	269	0.02	1.48
8	149	0.01	0.61
RPA 8	148	0.01	0.59

Description of Potential Impact:

Impacts to S5-S005c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate of S5-S005c is predominantly sand and leaf pack. There is a wide riparian corridor on both banks of the The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S005c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



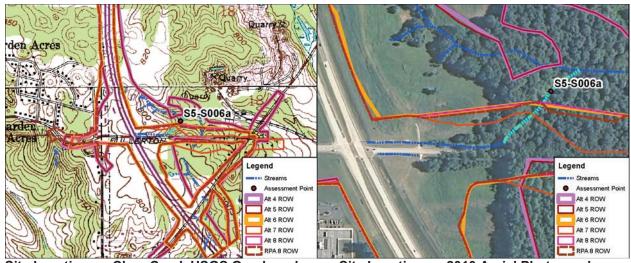
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S005c RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12189 LONG. RIVER CODE RIVER MILE	
DATE 10/10/11 SCORER DEW/KSS COMMENTS (Long: -86.56635) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] O% OW ARTIFICIAL [3 pts] O% O% OW OW OW OW OW OW OW OW	11
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 9 Check 100%	
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4' / 1' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4' / 1' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4' / 1' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4' / 1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) ANO	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
2	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4' / 1' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) Mature Forest, Wetland Conservation Tillage Moderate 5-10m Mature Forest, Shrub or Old Urban or Industrial Narrow < 5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS Mining or Construction Comments Mining or Construction Mining or Construction Mining or Construction Comments Mining or Construction Comments Mining or Construction Mining or Construction Comments Mining or Construction Comments Mining or Construction Mining or Construction Comments Mining or Construction Mining or Construction Comments Mining or Construct	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4' / 1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten) None (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
A.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30 15 Trop nt)

ADDITIONAL STREAM INFORMATION (This Informat	ion Must Also be Completed):
QHEI PERFORMED? - Yes 🗸 No QHE	El Score (If Yes, Attach Completed QHEl Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Clear Creek	_ Distance from Evaluated Stream
CWH Name: _	_ Distance from Evaluated Stream _
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCL	UDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe	Township / City: Perry
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last pre-	cipitation:Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% or	pen): 30%
Were samples collected for water chemistry? (Y/N): _N	(Note lab sample no. or id. and attach results) Lab Number:
	en (mg/l)pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N	Y If not, please explain:
Additional comments/description of pollution impacts:	
Flows only during storm events.	
BIOTIC EVALUATION	
N	
,	ations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit opriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) S Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N)	Salamanders Observed? (Y/N) N Voucher? (
Comments Regarding Biology:	N N
DRAWING AND NADRATIVE DES	COURTION OF STREAM REACH (This must be completed):
	SCRIPTION OF STREAM REACH (This <u>must</u> be completed):
include important landmarks and other features	of interest for site evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S005c for site topographic map, aerial photograph, and resource photographs





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

18

Aquatic Resource: Stream **USGS** Quadrangle: Clear Creek

Stream Name: Unnamed Trib. Clear Creek Section: Quarter: SW Township:

T8N Range: R1W IDEM 303(d) List: N/A **OHWM Width:** Watershed: 05120208090 5.0 feet Channelized/Type: No/Natural OHWM Depth: 1.0 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 39 Watershed Area: 0.01 sq mi **Predominant Sub:** Sand/gravel Legal Drain (Y/N): Ν

UTME: 1763044 ft **UTMN:** 14207710 ft

Stream S5-S006a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	551	0.06	1.77
5	551	0.06	1.77
6	282	0.03	1.21
7	212	0.02	0.78
8	293	0.03	1.24
RPA 8	285	0.03	1.14

Description of Potential Impact:

Impacts to S5-S006a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate of S5-S006a is predominately sand and gravel. There is a wide riparian corridor on both banks of the The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S006a are on the second page of this form.



Photograph Taken Upstream





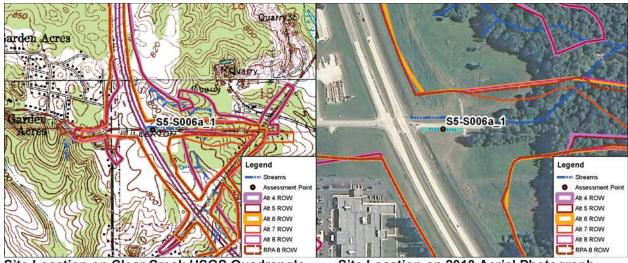
39

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S006a RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12303 LONG. RIVER CODE RIVER MILE	
DATE 10/10/11 SCORER DEW/KSS COMMENTS (Long: -86.56761) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metrio
BLDR SLABS [16 pts] 0% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt]	Max = 4
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ SAND (<2 mm) [6 pts] ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	19
Total of Percentages of 10.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
	00
COMMENTS OHW = 5' / 1' AVERAGE BANKFULL WIDTH (meters): 1.52	20
	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$	20
This information <u>must</u> also be completed	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\text{NOTE}: River Left (L) and Right (R) as looking downstream \$\text{X} \\ \frac{RIPARIAN WIDTH}{L R} \frac{FLOODPLAIN QUALITY}{L R} \text{ (Most Predominant per Bank) } \text{L R} \\ \text{VI} \text{Wide > 10m} \text{Mature Forest, Wetland} \text{Conservation Tillage}	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{RIPARIAN WIDTH} \frac{1}{2}\text{FLOODPLAIN QUALITY} \frac{1}{2}\text{L R (Most Predominant per Bank)} \frac{1}{2}\text{L R}	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5-10m T V Immature Forest, Shrub or Old Urban or Industrial	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Conservation Power Conservation Field	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cru None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Cru Mining or Construction Conservation Tillage Urban or Industrial Open Pasture, Row Cru Mining or Construction Conservation Tillage Urban or Industrial Open Pasture, Row Cru Mining or Construction Conservation Tillage Urban or Industrial Open Pasture, Row Cru Mining or Construction Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): None 3.0	ор -)

S5-S006a ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Perry
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: Quantity:
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts: Flows only during storm events.
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S006a for site topographic map, aerial photograph, and resource photographs

Save as pdf





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Clear Creek 19

Stream Name: Unnamed Trib. Clear Creek Section:

Quarter: NW Township: T8N Range: R1W IDEM 303(d) List: N/A

Watershed: 05120208090 OHWM Width: 1.2 feet Channelized/Type: Yes/Concrete Gutter **OHWM Depth:** 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No

Evaluation Score: Watershed Area: 0.01 sq mi 12 Legal Drain (Y/N): Ν **Predominant Sub:** Artificial

UTME: 1762257 ft **UTMN:** 14207384 ft

Stream S5-S006a_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	215	0.01	0.09	
5	215	0.01	0.09	
6	215	0.01	0.09	
7	215	0.01	0.09	
8	215	0.01	0.09	
RPA 8	215	0.01	0.09	

Description of Potential Impact:

Impacts to S5-S006a 1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located along West Fullerton Pike. No outlet was identified in the field and thus, this channel shall be considered isolated. There is no riparian buffer associated with this artificial channel. The floodplain consists of the roadway on the left bank and new field on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S006a 1 are on the second page of this form.



Photograph Taken Upstream



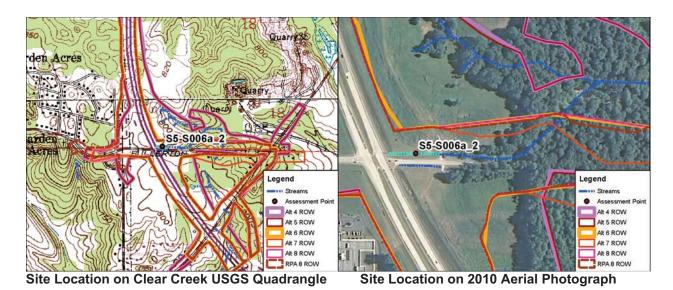
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S006a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12215 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long:-86.57039) Isolated (Concrete Gutter-Mod	d Class ∄
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ 100% ☐ ☐ 100% ☐ ☐ ☐ 100% ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	7
Tatal (Brown town of	
Total of Percentages of 0.00% (A) Substrate Percentage (B) Check (B)	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Noderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): O.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitter Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) Wide > 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 3' 0" - 4' 8") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) Wide > 10m	Width Max=30 5

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Aquatic Resource: Stream USGS Quadrangle: Clear Creek

Stream Name:Unnamed Trib. Clear CreekSection:18Quarter:SWTownship:T8NRange:R1WIDEM 303(d) List:N/A

N/A Watershed: 05120208090 OHWM Width: 1.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No

Evaluation Score: 12 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1762227 ft **UTMN**: 14207446 ft

Stream S5-S006a_2 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	261	0.01	0.00	
5	261	0.01	0.00	
6	261	0.01	0.00	
7	261	0.01	0.00	
8	261	0.01	0.00	
RPA 8	261	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S006a_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located along West Fullerton Pike. This channel flows to S5-S006a_3 via a 21-foot long pipe. There is no riparian buffer associated with this artificial channel. The floodplain consists of the new field on the left bank and roadway on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S006a_1 are on the second page of this form.



Photograph Taken Upstream



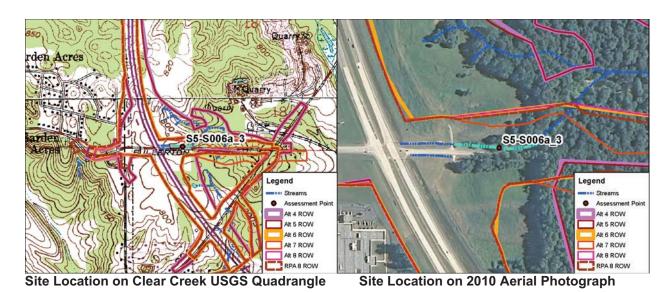
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S006a_2 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12232 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57049) (Concrete Gutter-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ше
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
■ BEDROCK [16 pt] 0% ■ FINE DETRITUS [3 pts] 0% ■ COBBLE (65-256 mm) [12 pts] 0% ■ CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts]	7
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	_
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (-3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Moderate 5-10m Field We have a substitute of one st, Stiffed of Old We have a substitute of one st, Stiffed of Old We have a substitute of one st, Stiffed of Old We have a substitute of one st, Stiffed of Old We have a substitute of one st, Stiffed of Old We have a substitute of Old We have a subs	
Open Pasture, Row Cr	
Narrow <5m Residential, Park, New Field Gent asture, New Signature	op
Narrow <5m Residential, Park, New Field Mining or Construction	op
Narrow <5m Residential, Park, New Field	- -
Narrow < 5m Residential, Park, New Field None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
Narrow < 5m Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	-
Narrow < 5m Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	-
Narrow < Sm	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 3.0	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 0.5 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 3.0	-) <u> </u>

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Reset Form



Aquatic Resource: Stream USGS Quadrangle: Clear Creek

18

T8N

Stream Name: Unnamed Trib. Clear Creek Section: Township:

Range: R1W IDEM 303(d) List: N/A Watershed: 05120208090 OHWM Width: 1.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No

Evaluation Score: 12 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1762604 ft **UTMN**: 14207423 ft

Stream S5-S006a_3 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	434	0.01	0.74	
5	434	0.01	0.74	
6	434	0.01	0.74	
7	434	0.01	0.74	
8	434	0.01	0.74	
RPA 8	434	0.01	0.74	

Description of Potential Impact:

Impacts to S5-S006a_3 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located along West Fullerton Pike. This channel flows to S5-S006a. There is narrow riparian buffer associated with the left bank of this artificial channel. The floodplain consists of the immature forest on the left bank and roadway on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S006a_3 are on the second page of this form.



Photograph Taken Upstream



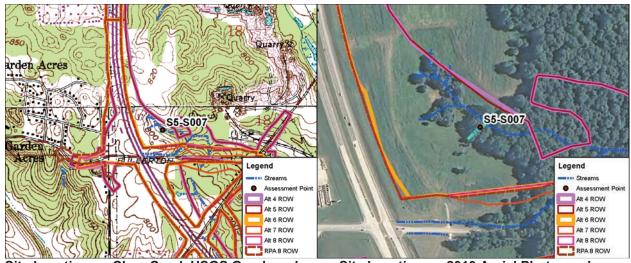
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S006a_3 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12225 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.56916) (Concrete Gutter-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING RECENT OR NO RECOVERED RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERED RECOVERING RECENT OR NO RECOVERED	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
□ □ BEDROCK [16 pt] 0% □ FINE DETRITUS [3 pts] 0% □ □ COBBLE (65-256 mm) [12 pts] 0% □ □ CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] O% MUCK [0 pts] O%	7
SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 100%	7
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	_
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.37	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Wide >10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	op
Moderate 5-10m Immature Forest, Shrub or Old Field V Narrow <5m Residential, Park, New Field V None Fenced Pasture Mining or Construction	op
Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr	op -
Moderate 5-10m Immature Forest, Shrub or Old Field V Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr Mining or Construction Mining or Construction Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	-
Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr Mining or Construction Mining or Construction Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	-
Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr Mining or Construction Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	-
Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Urban or Industrial Open Pasture, Row Cr Mining or Construction Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	-
Moderate 5-10m	-
Moderate 5-10m Immature Forest, Shrub or Old Field Open Pasture, Row Cr Residential, Park, New Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Open Pasture, Row Cr Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) Check ONLY one box): 3.0	-) <u> </u>

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Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek

Quarter: SW Range: R1W

Watershed: 05120208090 Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI **Evaluation Score:** 29

Legal Drain (Y/N): Ν **UTME**: 1762524 ft **UTMN:** 14207937 ft **USGS** Quadrangle: Clear Creek

Section: 18 Township: T8N IDEM 303(d) List: N/A OHWM Width: 1.5 feet OHWM Depth: 0.4 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Sand/gravel **Predominant Sub:**

Stream S5-S007 -Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	121	0.01	0.01	
5	121	0.01	0.01	
6	0	0.00	0.00	
7	0	0.00	0.00	
8	0	0.00	0.00	
RPA 8	0	0.00	0.00	

Description of Potential Impact:

Impacts to S5-S007 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of sand and gravel. This channel flows to S5-S004. There is moderately wide riparian buffer associated with this stream. The floodplain consists of the immature forest on the left bank and roadway on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S007 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

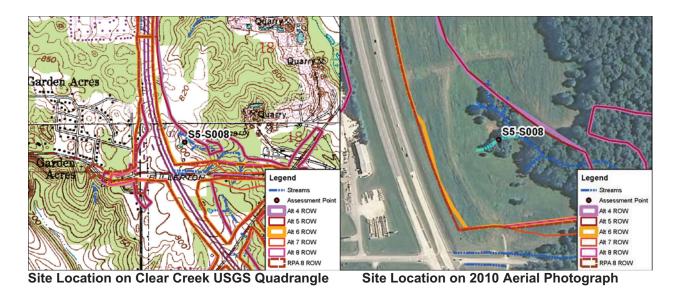


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S007 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 120 LAT. 39.12366 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56943) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	. DDEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] 30% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 60% ARTIFICIAL [3 pts] 0%	19
Orato (*2 mm) [o pto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	_
	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.50	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY PLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ###	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=10 minututututututututu	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Narrow <5m Narrow <5m Residential, Park, New Field PLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Wide > 10m Mature Forest, Wetland Wide > 10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moderate (Interstitial) Moderate (Interstitial)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) O,5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30

ADDITIONAL STREAM INFORM	ATION (This Information M	lust Also be Compl	leted):		S5-S007
QHEI PERFORMED? -	Yes ✓ No QHEI Sco	ore (If Y	res, Atta	ch Completed QHEI Forr	m)
DOWNSTREAM DESIG	ONATED USE(S)				
WWH Name: Clear Creek				_ Distance from Evaluat	ed Stream
CWH Name:					ed Stream _
EWH Name:				_ Distance from Evaluate	ed Stream _
	OPIES OF MAPS, INCLUDING	G THE ENTIRE WAT	ERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name: Clear	Creek	NRCS So	il Map P	age: 37 NRCS Soi	Map Stream Order
County: Monroe		Township / City:_	Perry		
MISCELLANEOUS					
Base Flow Conditions? (Y/N):_N	Date of last precipitat	tion:_ 05/12/0	6	Quantity: 0.39	
Photograph Information:					
Elevated Turbidity? (Y/N): _ N	Canopy (% open):	45%			
Were samples collected for water	chemistry? (Y/N): N	(Note lab sample no	o. or id. a	and attach results) Lab N	umber:
Field Measures: Temp (°C)	Dissolved Oxygen (m	g/l)pH ((S.U.)	Conductivity (µm	nhos/cm)
Is the sampling reach representat	ive of the stream (Y/N)	If not, please exp	olain:		
Additional comments/description	of pollution impacts:				
BIOTIC EVALUATION					
, ,	Yes, Record all observations number. Include appropriate		-	·	oles must be labeled with the site ssessment Manual)
Fish Observed? (Y/N) Vo Frogs or Tadpoles Observed? (Y/N)	` ~	anders Observed? (`Aquatic Macroinv	/	Voucher? (Y/N)	Voucher? (Y/N)
Comments Regarding Biology:					
DRAWING AND	NARRATIVE DESCRI	PTION OF STR	EAM R	EACH (This <u>must</u> l	oe completed):
Include important landmai	ks and other features of in	terest for site evalu	ation an	d a narrative description	n of the stream's location
S	ee Stream Asse	essment For	cm		
FLOW S	5-S007 for sit	te topograp	phic	map,	
FLOW -	erial photogra				hs

Save as pdf

Reset Form



Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek

Quarter: SW Range: R1W

Legal Drain (Y/N):

Watershed: 05120208090 Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI **Evaluation Score:** 29

UTME: 1762323 ft **UTMN:** 14208032 ft

Ν

USGS Quadrangle:	Clear Creek
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Section: 18 Township: T8N IDEM 303(d) List: N/A OHWM Width: 1.6 feet OHWM Depth: 0.4 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi Sand/gravel **Predominant Sub:**

Stream S5-S008 -Class I PHWH Area of Impact (acres) **Alternatives** Length of Impact (feet) Riparian Impact (acres) 4 238 0.01 0.12 5 238 0.01 0.12 6 0 0.00 0.00 7 0.00 0.00 0 8 0 0.00 0.00 RPA8 0 0.00 0.00

Description of Potential Impact:

Impacts to S5-S008 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of sand and gravel. This channel flows to S5-S004. There is a narrow riparian buffer associated with this stream. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S008 are on the second page of this form.



Photograph Taken Upstream



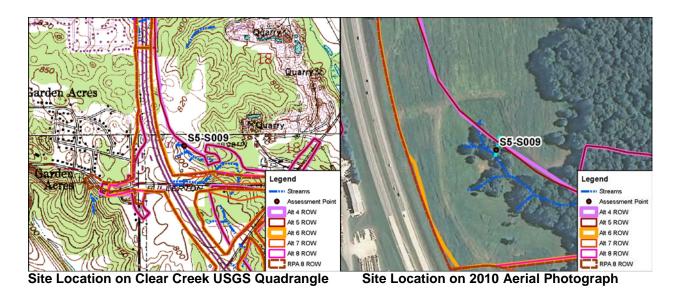
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S008 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.12393 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.57014) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ппе
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] 30% MUCK [0 pts] 0% ✓ SAND (<2 mm) [6 pts]	19
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 20.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
<pre></pre>	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.6' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.49	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Open Pasture, Row Cro	р
Narrow <5m Residential, Park, New Field Mining or Construction	
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS COMMENTS COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 3.0 0.5 1.5 2.5 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	0 ft)

ADDITIONAL STREAM INFOR	MATION (This Information Must A	lso be Completed):		S5-S008
QHEI PERFORMED	? - Yes ✓ No QHEI Score	(If Yes, Atta	ach Completed QHEI Forr	n)
DOWNSTREAM DES	SIGNATED LISE(S)			
WWH Name: Clear Creek	· ,		Distance from Evaluat	ed Stream
CWH Name:			Distance from Evaluate	_
EWH Name:			Distance from Evaluate	ed Stream
MAPPING: ATTACH	COPIES OF MAPS, INCLUDING THE	ENTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name: Cle	ar Creek	NRCS Soil Map P	Page: 37 NRCS Soi	Map Stream Order
County: Monroe	Tov	wnship / City:Perry		
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_	N Date of last precipitation:_	05/12/06	Quantity: 0.39	
Photograph Information:				
Elevated Turbidity? (Y/N):N	Canopy (% open): 7	5%		
Were samples collected for war	ter chemistry? (Y/N): N (Note	lab sample no. or id. a	and attach results) Lab No	umber:
Field Measures: Temp (°C)	Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µm	hos/cm)
Is the sampling reach represen	tative of the stream (Y/N)	ot, please explain:		
Additional comments/description	on of pollution impacts:			
DIOTIC EVALUATIO	NI			
BIOTIC EVALUATION	<u>N</u>			
Performed? (Y/N): _ N	(If Yes, Record all observations. Vouc		·	
	ID number. Include appropriate field d	lata sheets from the Pri	mary Headwater Habitat A	ssessment Manual)
Fish Observed? (Y/N)	` ~	Observed? (Y/N)	Voucher? (Y/N)	
Frogs or Tadpoles Observed?	(Y/N) Voucher? (Y/N) Aq	uatic Macroinvertebrat	tes Observed? (Y/N)	Voucher? (Y/N)
Comments Regarding Biology:				
DRAWING AN	D NARRATIVE DESCRIPTIO	N OF STREAM R	REACH (This must b	pe completed):
	narks and other features of interest		• —	
morado important idian		Tor one evaluation an	ia a narrativo accomption	or are caream o location
	See Stream Assess	ment Form		
A				
FLOW	S5-S008 for site		_	_
	aerial photograph	, and resou	irce photogra	phs

Reset Form



Aquatic Resource: Stream **USGS Quadrangle:**

Stream Name: Unnamed Trib. Clear Creek

Quarter: SW Range: R1W

Watershed: 05120208090 Channelized/Type: No/Natural **Ephemeral Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 29

Legal Drain (Y/N): Ν **UTME:** 1762353 ft **UTMN:** 14208185 ft Clear Creek

Section: 18 Township: T8N IDEM 303(d) List: N/A **OHWM Width:** 1.1 feet OHWM Depth: 0.3 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Sand/gravel **Predominant Sub:**

	Stream S5	-S009 -Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	78	0.01	0
5	75	0.01	0
6	0	0.00	0
7	0	0.00	0
8	0	0.00	0
RPA 8	0	0.00	0

Description of Potential Impact:

Impacts to S5-S009 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of sand and gravel. This channel flows to S5-S004. There is a moderately wide riparian buffer associated with this stream. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S009 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

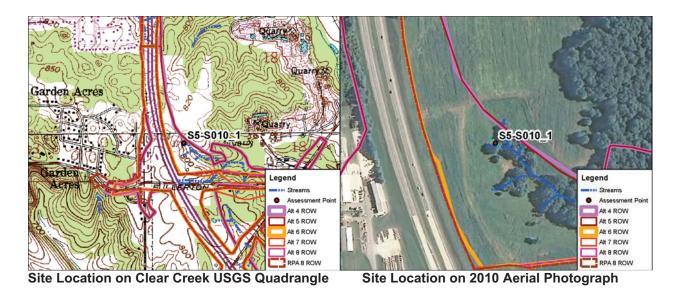


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S009 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 109 LAT. 39.12435 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.57003) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% FINE DETRITUS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	19
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B) 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermittent) Noist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Who Predominant per Bank) Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS None (Check ONLY one box): Dry channel, no water (Ephemeral) COMMENTS	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Most Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Most Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30

ADDITIONAL STREAM INFO	DRMATION (This Information Must A	Also be Completed):		\$5-\$009
QHEI PERFORME	ED? - Yes No QHEI Score	(If Yes, Attack	h Completed QHEI Form)	
DOWNSTREAM D WWH Name: Clear Cree CWH Name: EWH Name:	ESIGNATED USE(S)		Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	
MAPPING: ATTAC	H COPIES OF MAPS, INCLUDING THE	E ENTIRE WATERSHED	AREA. CLEARLY MARK THE SITE LOC	CATION
USGS Quadrangle Name: C	lear Creek	NRCS Soil Map Pa	ge: 37 NRCS Soil Map Stream O	order
County: Monroe	То	wnship / City: Perry		
MISCELLANEOUS Base Flow Conditions? (Y/N)		05/12/06	Quantity: 0.39	
Photograph Information:				
Elevated Turbidity? (Y/N): _	N Canopy (% open):	50%		
Were samples collected for v	vater chemistry? (Y/N): N	e lab sample no. or id. an	nd attach results) Lab Number:	
Field Measures: Temp (°C		pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach represe	entative of the stream (Y/N) Y If	not, please explain:		
Additional comments/descrip	tion of pollution impacts:			
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Observed	(If Yes, Record all observations. Vou ID number. Include appropriate field Voucher? (Y/N)	·	NOTE: all voucher samples must be labe ary Headwater Habitat Assessment Manu Voucher? (Y/N) S Observed? (Y/N) Voucher? (Y/N)	ual)
Comments Regarding Biolog	y:			
			, , , , , , , , , , , , , , , , , , , ,	
DRAWING A	ND NARRATIVE DESCRIPTION	ON OF STREAM RE	EACH (This <u>must</u> be complete	d):
Include important land	dmarks and other features of interes	t for site evaluation and	a narrative description of the stream'	s location
FLOW	See Stream Assessmen		2	

S5-S009 for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream **USGS** Quadrangle: Clear Creek

18

Stream Name: Unnamed Trib. Clear Creek Section: Quarter: SW Township: T8N Range: R1W IDEM 303(d) List:

N/A **OHWM Width:** Watershed: 05120208090 6.8 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 32 Watershed Area: 0.01 sq mi

Sand/gravel Legal Drain (Y/N): Ν **Predominant Sub:**

UTMN: 14208217 ft **UTME:** 1762224 ft

	Stream S5-	S010_1 –Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	53	0.01	0.00
5	53	0.01	0.00
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S010 1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a moderately wide riparian corridor on this headwater stream. The floodplain consists primarily of immature forest along both banks. This stream flows to S5-S010a. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S010 1 are on the second page of this form.



Photograph Taken Upstream

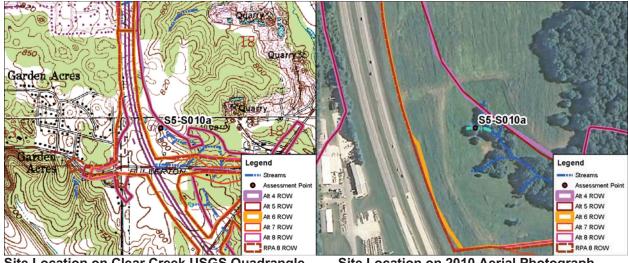


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S010_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 52 LAT. 39.12444 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.57049) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ □ SILT [3 pt] 20%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D'' LEAF PACK/WOODY DEBRIS [3 pts] 0% FINE DETRITUS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	12
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B) 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] < 1.0 m (<=3' 3") [5 pts]	Bankfull Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.8'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.8'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 2.07	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.8'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.8'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) U Wide > 10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.8'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m (>9' 7" - 4' 8") [20 pts] L R (Most Predominant per Bank) Wide >10m (>9' 7" - 4' 8") [20 pts] L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Park, New Field Open Pasture, Row of Residential, Park, New Field Open Pastur	Width Max=30 20
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.8'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field	Width Max=30 20
Solution	Width Max=30 20
S 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] S 1.0 m (<=3' 3") [5 pts]	Width Max=30 20
Solution	Width Max=30 20
Since Sinc	Width Max=30 20
Sinuosity (Number of bends per 61 m (200 ft) of channel) 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30 20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	Width Max=30 20
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6.8'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 20 Crop n nt)





Site Location on Clear Creek USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek Quarter: SW

Range: R1W Watershed: 05120208090 Channelized/Type: No/Natural Stream Type: Ephemeral **Evaluation Type:** HHEI **Evaluation Score:** 29

Legal Drain (Y/N): Ν

UTMN: 14208202 ft **UTME:** 1762225 ft

USGS	Quadrangle:	Clear	Creek
0000	Quadrangie.	Cicai	CICCK

Section: 18 Township: T8N IDEM 303(d) List: N/A **OHWM Width:** 1.1 feet OHWM Depth: 0.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Predominant Sub: Sand/gravel

-			
	Stream S5	-S010a –Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	131	0.01	0.00
5	131	0.01	0.00
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S010a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a moderately wide riparian corridor on this headwater stream. The floodplain consists primarily of immature forest along both banks. This stream flows to S5-S004. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S010a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



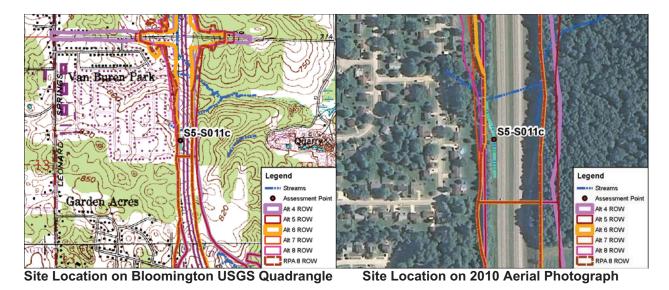
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S010a RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 130 LAT. 39.12439 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.57048) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D'' LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% 0% FINE DETRITUS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	19
SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
3 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS Fenced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Immature Forest, Shrub or Old What Predominant per Bank) Residential, Park, New Field Open Pasture, Row Crown Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note: RIPARIAN WIDTH L R (Per Bank) Wide >10 m Wide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5 m Residential, Park, New Field PLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box):	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S010a
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attack	h Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED A	AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Clear Creek NRCS Soil Map Page	ge: 37 NRCS Soil Map Stream Order
County: Monroe Township / City: Perry	
MISCELLANEOUS	0.00
Base Flow Conditions? (Y/N):_N _ Date of last precipitation:_ 05/12/06	Quantity: 0.39
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. an	nd attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
is the sampling reach representative of the stream (1714)	
Additional comments/description of pollution impacts:	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prim Fish Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Comments Regarding Biology:	ary Headwater Habitat Assessment Manual) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM RE Include important landmarks and other features of interest for site evaluation and	



See Stream Assessment Form S5-S010a for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Bloomington

18

T8N

Stream Name: Unnamed Trib. Clear Creek Section:
Quarter: NW Township:

Range: R1W **IDEM 303(d) List:** N/A **Watershed:** 05120208090 **OHWM Width:** 4.0 feet

Channelized/Type:Yes/Dump Rock GutterOHWM Depth:0.2 feetStream Type:EphemeralUSCOE Jurisdiction:NoEvaluation Type:HHEIIDEM Jurisdiction:No

Evaluation Score: 22 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1761414 ft **UTMN**: 14210557 ft

	Stream S5-S011	c – Modified Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	410	0.04	0.44
5	410	0.04	0.43
6	410	0.04	0.46
7	410	0.04	0.48
8	410	0.04	0.48
RPA 8	410	0.04	0.47

Description of Potential Impact:

Impacts to S5-S011c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the right bank and an old field on the left. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S011c are on the second page of this form.



Photograph Taken Upstream

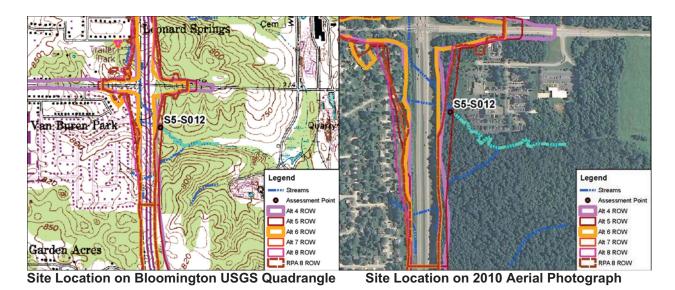




SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S011c RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.13087 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57330) (Dump Rock Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts]	7
SAND (<2 mm) [6 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 4.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 4'/0.2' AVERAGE BANKFULL WIDTH (meters): 1.22	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\times \text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage	qı
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m Residential, Park, New Field Residential Fenced Pasture None RIPARIAN ZONE AND FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction	ρ
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m Residential, Park, New Field NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A Residential, Park, New Field Open Pasture, Row Cro	qı
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field Fenced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box):	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) Otherwise And Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): None 3.0 Check ONLY one box): Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): None 3.0 Check ONLY one box): Check ONLY one box): None 3.0 Check ONLY one box): None 3.0	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A PNOTE: River Left (L) and Right (R) as looking downstream A PNOTE: River Left (L) and Right (R) as looking downstream A PNOTE: River Left (L) and Right (R) as looking downstream A PNOTE: River Left (L) and Right (R) as looking downstream A River Left (L) and Right (R) as looking downstream A FLOODPLAIN QUALITY Note: A Note Left (L) and Right (R) as looking downstream A Most Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 CCHCK ONLY one box): CCHCK ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) CCHCK ONLY one box): None 3.0 CCHCK ONLY one box): CCHCK ONLY one box): CCHCK ONLY one box): None 3.0 CCHCK ONLY one box): CCHCK ONLY one box): None 3.0	-

ADDITIONAL STREA	AM INFORMATION (This Information Mu	ıst Also be Completed):		55-5011C
QHEI PER	FORMED? - Yes V No QHEI Scor	re (If Yes, Atta	ach Completed QHEI Form)	
DOWNSTE WWH Name: Cle CWH Name: EWH Name:	REAM DESIGNATED USE(S) ear Creek		Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	
MAPPING	: ATTACH COPIES OF MAPS, INCLUDING	THE ENTIRE WATERSHED	DAREA. CLEARLY MARK THE SITE LO	OCATION
USGS Quadrangle N	ame: Bloomington	NRCS Soil Map F	Page: NRCS Soil Map Stream	Order _
County: Monroe		Township / City: Van Bu	uren	
MISCELLA Base Flow Condition Photograph Information	s? (Y/N):_Y Date of last precipitation	on: 04/19/12	Quantity: 0.20	
Elevated Turbidity? (Y/N): _ N	100%		
Were samples collec	eted for water chemistry? (Y/N): N	Note lab sample no. or id. a	and attach results) Lab Number:	
Field Measures:	Temp (°C) Dissolved Oxygen (mg	/I)pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach	n representative of the stream (Y/N)	If not, please explain:		
Additional comments	s/description of pollution impacts:			
	ID number. Include appropriate for Noucher? (Y/N) N Salaman bserved? (Y/N) N Voucher? (Y/N) N		I. NOTE: all voucher samples must be la imary Headwater Habitat Assessment Ma Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (**)	nual)
	VING AND NARRATIVE DESCRIF			
FLOW -	See Stream Assessme			
FLUW 4	S5-S011c for site t aerial photograph.			





Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Clear CreekSection:18Quarter:NWTownship:T8NRange:R1WIDEM 303(d) List:N/A

OHWM Width: Watershed: 05120208090 4.9 feet Channelized/Type: No/Natural OHWM Depth: 0.9 feet Stream Type: Intermittent **USCOE** Jurisdiction: Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes **Evaluation Score:** 70 Watershed Area: 0.24 sq mi

Legal Drain (Y/N): N **Predominant Sub:** Bedrock/gravel **UTME:** 1761778 ft **UTMN:** 14211833 ft

Stream S5-S012- Class III PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	0	0.00	0.14	
5	58	0.01	0.62	
6	0	0.00	0.00	
7	0	0.00	0.16	
8	0	0.00	0.17	
RPA 8	0	0.00	0.19	

Description of Potential Impact:

Impacts to S5-S012 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of a fairly even mix of bedrock, cobble, gravel, and sand. There is a wide riparian corridor where Alternative 5 crosses this creek. The floodplain consists primarily of mature forest on both banks of the stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S012 are on the second page of this form.



Photograph Taken Upstream



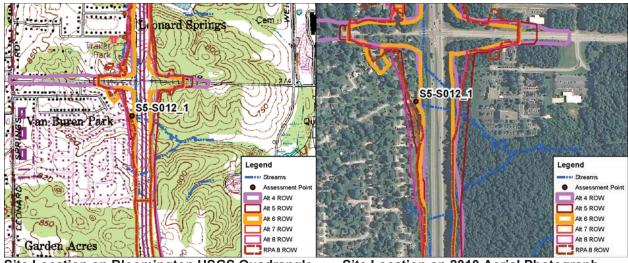
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S012 RIVER BASIN White River DRAINAGE AREA (mi²) 0	24
LENGTH OF STREAM REACH (ft) 200 LAT. 39.13437 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER J Meeker COMMENTS (Long: -86.57200) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
■ BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 5% ■ BEDROCK [16 pt] 30% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts] 20% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 25% MUCK [0 pts] 0%	30
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 50.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 25 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	25
✓ > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 18	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 4.9' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.49	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Field	
Field — Open Pasture Row Cro	þ
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	p
Field — Open Pasture Row Cro	p
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	р
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3 1.0 2.5 3.0 >3	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	

ADDITIONAL STREAM INFORMA	ATION (This Information Mu	ıst Also be Comple	eted):		S	5-8012
QHEI PERFORMED? -	Yes ✓ No QHEI Scor	re (If Y	es, Attac	h Completed QHEI Fo	rm)	
DOWNSTREAM DESIG	SNATED USE(S)			Distance from Evalua Distance from Evalua Distance from Evalua	ted Stream _	
MAPPING: ATTACH CO	PIES OF MAPS, INCLUDING	THE ENTIRE WATE	ERSHED A	AREA. CLEARLY MAR	RK THE SITE LOCATI	ON
USGS Quadrangle Name: Bloom	ington	NRCS Soi	il Map Pa	ge: 37 NRCS So	oil Map Stream Order	. 2
County: Monroe		Township / City:	Perry			
MISCELLANEOUS Base Flow Conditions? (Y/N):_N	Date of last precipitation	on:05/12/06	6	Quantity: 0.3	9	
Photograph Information: 185 Up	stream / 186 Downstream /	187 Right bank / 18	88 Left b	ank		
Elevated Turbidity? (Y/N): N Were samples collected for water Field Measures: Temp (°C) Is the sampling reach representation	Dissolved Oxygen (mg		S.U.)	nd attach results) Lab Ν		
Additional comments/description of BIOTIC EVALUATION N	of pollution impacts:					
Performed? (Y/N): (If	` ~	ield data sheets from	n the Prim		•	with the site
	NARRATIVE DESCRIF			`		
FLOW → S5-S	Stream Assessm	opographi			4	

Reset Form



Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek NE Range: R2W

Watershed: 05120208090

Channelized/Type: Yes/Dump Rock Gutter
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 22 Legal Drain (Y/N): N

UTME: 1761271 ft **UTMN**: 14211995 ft

USGS Quadrangle: Bloomington

Section: 13 Township: T8N IDEM 303(d) List: N/A **OHWM Width:** 4.0 feet OHWM Depth: 0.8 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes 0.24 sq mi Watershed Area:

Watershed Area: 0.24 sq mi Predominant Sub: Artificial

Stream S5-S012_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	0	0.00	0.00	
5	36	0.01	0.00	
6	0	0.00	0.00	
7	36	0.01	0.00	
8	36	0.01	0.00	
RPA 8	36	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S012_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter. There is narrow (left bank) to no (right bank) riparian buffer associated with this disturbed channel. The floodplain consists of an old field along both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S012_1 are on the second page of this form.



Photograph Taken Upstream



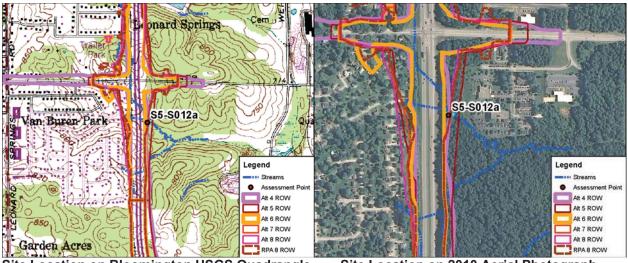
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NAME/LOCATION STEENAMBER S5-S012_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.24
LENGTH OF STREAM REACH (ft) 36 LAT. 39.13482 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.57379) (Dump Rock Gutter-Modified	Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	ı HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Total of Percentages of Once (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	~.5
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
 > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
iii balineii 1 001 52 111 (balialii tata).	
	<u> </u>
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\left(\) = 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\left(\) = 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4'/0.8' AVERAGE BANKFULL WIDTH (meters): 1.22 This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY LR (Per Bank) AVERAGE BANKFULL WIDTH (meters): 1.22 AVERAGE BANKFULL WIDTH (meters): LR (Most Predominant per Bank) LR (Most Predominant per Bank) LR	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4'/0.8' AVERAGE BANKFULL WIDTH (meters): 1.22 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣ NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Description Tillage Moderate 5-10m Mature Forest, Wetland Urban or Industrial Field Field Conservation Power Pasture Power AVERAGE BANKFULL WIDTH (meters): 1.22 1.22 AVERAGE BANKFULL WIDTH (meters): 4 1.0 m (<=3' 3") [5 pts] 4 2 1.0 m (<=3' 3") [5 pts] 4 3 1.0 m (<=3' 3") [5 pts] 4 4 8") [15 pts] 4 5 1.0 m (<=3' 3") [5 pts] 4 6 1.0 m (<=3' 3" - 4' 8") [15 pts] 4 1.0 m (<=3' 3") [5 pts] 5 1.0 m (<=3' 3") [5 pts] 6 1.0 m (<=3' 3") [5 pts] 7 1.0 m (<=3'	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ↓ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ↓ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH ↓ R (Per Bank) ↓ L R (Most Predominant per Bank) ↓ L R (Most Predominant per Bank) ↓ R (Most Predom	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4'/0.8' This information must also be completed RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WIDTH RIPARIAN WIDTH RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WIDTH (Most Per Bank) RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WI	Width Max=30
A	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4'/0.8' This information must also be completed RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WIDTH RIPARIAN WIDTH RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WIDTH (Most Per Bank) RIPARIAN WIDTH (Most Predominant per Bank) RIPARIAN WI	Width Max=30

				S5-S012_1
ADDITIONAL STREAM INFORM	ATION (This Information Must		_	
QHEI PERFORMED? -	Yes ✓ No QHEI Score	(If Yes, A	Attach Completed QHEI For	m)
DOWNSTREAM DESIG	GNATED USE(S)			
WWH Name: Clear Creek CWH Name:			Distance from Evalua Distance from Evaluat	
EWH Name:			Distance from Evaluat	
MAPPING: ATTACH CO	OPIES OF MAPS, INCLUDING TH	IE <u>ENTIRE</u> WATERSH	HED AREA. CLEARLY MAR	K THE SITE LOCATION
USGS Quadrangle Name: Bloom	nington	NRCS Soil Ma	p Page: NRCS So	il Map Stream Order
County: Monroe		ownship / City: Van	Buren	
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_Y	Date of last precipitation:	04/19/12	Quantity: 0.20	
Photograph Information:	1			
Elevated Turbidity? (Y/N):N	Canopy (% open):	100%		
Were samples collected for water	chemistry? (Y/N): _N (No	te lab sample no. or i	d. and attach results) Lab N	umber:
Field Measures: Temp (°C)	Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µn	nhos/cm)
Is the sampling reach representat	tive of the stream (Y/N) Y	f not, please explain:		
Additional comments/description	of pollution impacts:			
BIOTIC EVALUATION				
N	•			
Performed? (Y/N): (If	f Yes, Record all observations. Vo) number. Include appropriate field	·		
		ers Observed? (Y/N)		
Frogs or Tadpoles Observed? (Y/	(N) N Voucher? (Y/N)	ers Observed? (\//\\) <u> </u> Aquatic Macroinvertel	Voucher? (Y/N)	Voucher? (Y/N)
Comments Regarding Biology:				
				· · · · · · · · · · · · · · · · · · ·
DRAWING AND	NARRATIVE DESCRIPT	ION OF STREAM	REACH (This <u>must</u>	be completed):
Include important landmai	rks and other features of intere	st for site evaluation	and a narrative descriptio	n of the stream's location
	Stream Assessme	nt Form		
FLOW T	S012 1 for site		c map,	
	ial photograph,		_	
5.01	F D F /		<u>r</u> 3 19 19 - 10 - 10 - 10 - 10 - 10	





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrang

Stream Name: Unnamed Trib. Clear Creek Quarter: NW

Range: R1W
Watershed: 05120208090
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 81
Legal Drain (Y/N): N

UTME: 1761702 ft **UTMN**: 14211845 ft

USGS Quadrangle: Bloomington

Section: 18 Township: T8N IDEM 303(d) List: N/A OHWM Width: 18.0 feet OHWM Depth: 0.6 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.24 sq mi

Watershed Area: 0.24 sq mi Predominant Sub: Sand/boulders

Stream S5-S012a – Class III PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	99	0.04	0.09		
5	152	0.06	0.10		
6	7	0.01	0.02		
7	103	0.04	0.09		
8	105	0.04	0.09		
RPA 8	114	0.05	0.09		

Description of Potential Impact:

Impacts to S5-S012a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand, boulders, and gravel. There is a wide riparian corridor where the Alternatives cross this creek. The floodplain consists primarily of immature forest on both banks of the stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S012a are on the second page of this form.



Photograph Taken Upstream



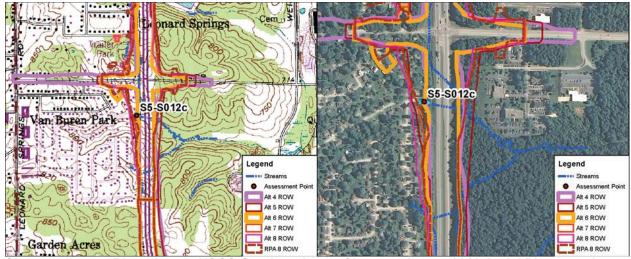
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S012a RIVER BASIN White River DRAINAGE AREA (mi²)	0.24
LENGTH OF STREAM REACH (ft) 152 LAT. 39.13441 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.57227) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] LEAF PACK/WOODY DEBRIS [3 pts] 0% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	26
Total of Percentages of OA OOM (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	4+6
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 11	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	IWIAX-30
COMMENTS OHW = 18'/0.6' AVERAGE BANKFULL WIDTH (meters): 5.49	30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row C	op.
None Residential, Faik, New Field Mining or Construction	
COMMENTS	L
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	t)
COMMENTS	1
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 3.0 5 3	
STREAM GRADIENT ESTIMATE	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/	100 ft)

ADDITIONAL STREAM	INFORMATION (This Information Mu	st Also be Completed):		S5-S012a
QHEI PERFO	RMED? - Yes V No QHEI Score	e (If Yes, Atta	ach Completed QHEI Form	n)
DOWNSTREATE WWH Name: Clear CWH Name: EWH Name:	AM DESIGNATED USE(S) Creek		Distance from Evaluate _ Distance from Evaluated _ Distance from Evaluated	d Stream _
MAPPING: A	TTACH COPIES OF MAPS, INCLUDING	THE <u>ENTIRE</u> WATERSHED	DAREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Nam	Bloomington	NRCS Soil Map F	Page: NRCS Soil	Map Stream Order
County: Monroe		Township / City: Perry		
MISCELLANE Base Flow Conditions?	(Y/N): Y Date of last precipitation	n:_ 04/19/12	Quantity: 0.20	<u></u>
Photograph Information: Elevated Turbidity? (Y/N Were samples collected	N Canopy (% open):	5% Note lab sample no. or id. a	and attach results) Lab Nui	mber:
Field Measures: Ten	ppresentative of the stream (Y/N)		Conductivity (μmh	
Additional comments/de	escription of pollution impacts:			
BIOTIC EVAI Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Obse Comments Regarding B	(If Yes, Record all observations. ID number. Include appropriate fi Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) N		imary Headwater Habitat Ass Voucher? (Y/N)	
	IG AND NARRATIVE DESCRIP t landmarks and other features of inte			
FLOW →	See Stream Assessments S5-S012a for site to aerial photograph,	opographic ma	_	





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek

Quarter: NE Range: R2W

Watershed: 05120208090 Channelized/Type: No/Natural Stream Type: **Ephemeral Evaluation Type:** HHEI **Evaluation Score:** 51

Legal Drain (Y/N): Ν

UTME: 1761299 ft **UTMN:** 14211978 ft

USGS	Quadrangle:	Bloomington
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Section: 13 Township: T8N IDEM 303(d) List: N/A OHWM Width: 4.6 feet OHWM Depth: 1.3 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.24 sq mi

Predominant Sub: Sand

Stream S5-S012c - Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	45	0.01	0.09	
5	126	0.01	0.09	
6	56	0.01	0.09	
7	126	0.01	0.09	
8	126	0.01	0.09	
RPA 8	126	0.01	0.09	

Description of Potential Impact:

Impacts to S5-S012c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists primarily of sand. There is a narrow riparian corridor along the right bank and no riparian zone along the left. The floodplain consists of fragmented immature forest and disturbed shrubby habitat. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S012c are on the second page of this form.



Photograph Taken Upstream



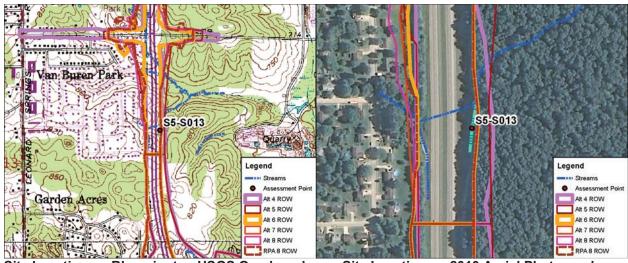
Photograph Taken Downstream



	THIEF COOLE (Sum of metrics 1, 2, 3) :					
SITE NAME/LOCATION I-69 Section 5						
SITE NUMBER	55-S012c RIVER BASIN White River DRAINAGE AREA (mi²) 0.2	24				
LENGTH OF STREAM REACH (ft) 126	LAT. 39.13478 LONG. RIVER CODE RIVER MILE					
DATE 04/23/12 SCORER KSS	COMMENTS (Long: -86.57369) (Natural-Class II)					
		4 !				
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ictions				
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECO	OVERY				
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes					
	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE				
	ERCENT TYPE PERCENT	Metri Point				
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	0% SILT [3 pt] 5% 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	ı Ollik				
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 0%	Substra				
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%	Max = 4				
GRAVEL (2-64 mm) [9 pts]	0% MUCK [0 pts] 0%	44				
SAND (<2 mm) [6 pts]	95% ARTIFICIAL [3 pts] 0%	11				
Total of Percentages of	Substrate Percentage (B)					
Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage Check 100% (B)	A + B				
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 2					
2. Maximum Pool Depth (Measure the m.	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep				
- `	d culverts or storm water pipes) (Check ONLY one box):	Max = 3				
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]					
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	0.5				
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	25				
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 16					
DANK FILL IMPELLA						
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check ONLY one box): 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfu Width				
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30				
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]						
COMMENTS OHW = 4.6'/1.3'	AVERAGE BANKFULL WIDTH (meters): 1.40	15				
	7 10 10 2 57 11 11 (motolo).					
	This information much do be accorded.					
RIPARIAN ZONE AND FLOODP	This information <u>must</u> also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆					
RIPARIAN WIDTH	FLOODPLAIN QUALITY					
L R (Per Bank)	L R (Most Predominant per Bank) L R					
Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old					
Moderate 5-10m	Field Urban or Industrial					
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	0				
✓ □ None	Fenced Pasture Mining or Construction					
COMMENTS	Fericed Pasture Minning of Construction					
`	aluation) (Check ONLY one box):					
✓ Stream Flowing Subsurface flow with isolated poo	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)					
COMMENTS						
CINILIOCITY /No of boards	per 61 m (200 ft) of shannel) (Check ON! Vene have)					
SINUOSITY (Number of bends p None	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0					
0.5	1.5 2.5 3					
CTDEAM ODADIENT FOTMATE						
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe Severe (10 ft/100	0 ft)				
		,				

ADDITIONAL STRE	EAM INFORMATION (This Information Must A	Also be Completed):		S5-S012C
QHEI PER	RFORMED? - Yes No QHEI Score	(If Yes, At	tach Completed QHEI Form)	
DOWNST WWH Name: C CWH Name: _	REAM DESIGNATED USE(S) lear Creek		Distance from Evaluated St Distance from Evaluated St Distance from Evaluated St	ream
MAPPING	3: ATTACH COPIES OF MAPS, INCLUDING THE	ENTIRE WATERSHE	ED AREA. CLEARLY MARK TH	E SITE LOCATION
USGS Quadrangle N	Name: Bloomington	NRCS Soil Map	Page: NRCS Soil Ma	o Stream Order
County: Monroe	То	wnship / City: Van I	Buren	
Field Measures:	tion: (Y/N): N Canopy (% open): cted for water chemistry? (Y/N): Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)		/cm)
BIOTIC E Performed? (Y/N): _ Fish Observed? (Y/N) Frogs or Tadpoles C Comments Regarding	Observed? (Y/N) N Voucher? (Y/N) N Ac	data sheets from the F	Primary Headwater Habitat Assess Voucher? (Y/N)	
	VING AND NARRATIVE DESCRIPTION rtant landmarks and other features of interest See Stream Assessment S5-S012c for site top aerial photograph, an	t for site evaluation a t Form pographic m	and a narrative description of t	

Reset Form



Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section: 18

Quarter:NWTownship:T8NRange:R1WIDEM 303(d) List:N/A

OHWM Width: Watershed: 05120208090 1.2 feet Channelized/Type: Yes/Concrete Gutter **OHWM Depth:** 0.2 feet Stream Type: **USCOE Jurisdiction:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No

Evaluation Score: 12 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1761645 ft **UTMN**: 14210727 ft

Stream S5-S013 – Modified Class I PHWH						
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)			
4	252	0.01	0.53			
5	252	0.01	0.50			
6	252	0.01	0.14			
7	252	0.01	0.14			
8	252	0.01	0.14			
RPA 8	252	0.01	0.14			

Description of Potential Impact:

Impacts to S5-S013 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with the left bank of this artificial channel. The floodplain consists of INDOT ROW on the left bank and mature forest on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S013 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



12

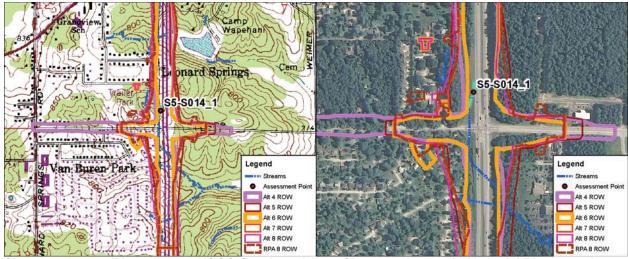
SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S013 DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. **39.13134** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.57249) (Concrete Gutter-Modified Class I) DATE **04/23/12** KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 0% 100% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 1 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.37 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also	S5-S013 be Completed):
	(If Yes, Attach Completed QHEI Form)
	,
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENT	TIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Townsh	ip / City: Perry
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:	04/19/12 Quantity: 0.00
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 75%	
Were samples collected for water chemistry? (Y/N): (Note lab	sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, p	olease explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher	collections optional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data	sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Ob Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquation	served? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
	OF STREAM REACH (This <u>must</u> be completed):
include important landmarks and other features of interest for	site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S013 for site topographic map, aerial photograph, and resource photographs





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section: 7

Quarter:SWTownship:T8NRange:R1WIDEM 303(d) List:N/A

Watershed:05120208090OHWM Width:3.1 feetChannelized/Type:Yes/Dump Rock GutterOHWM Depth:0.6 feetStream Type:EphemeralUSCOE Jurisdiction:No

Evaluation Type:HHEIIDEM Jurisdiction:NoEvaluation Score:12Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1761392 ft **UTMN**: 14213081 ft

Stream S5-S014_1 - Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	283	0.02	0.06
5	283	0.02	0.14
6	283	0.02	0.00
7	283	0.02	0.14
8	283	0.02	0.14
RPA 8	283	0.02	0.14

Description of Potential Impact:

Impacts to S5-S014_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the left bank and new field on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S014_1 are on the second page of this form.



Photograph Taken Upstream

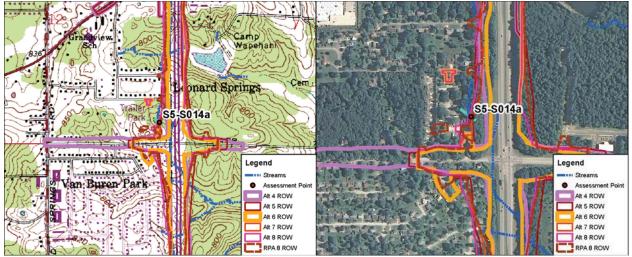


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S014_1 RIVER BASIN White River DRAINAGE AREA (mi²)	-01
LENGTH OF STREAM REACH (ff) 200 LAT. 39.13781 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57334) (Dump Rock Gutter-Modified (Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] □ 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts]	7
SAND (<2 mm) [6 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	VAC: -IAI-
	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 3.1'/0.6' AVERAGE BANKFULL WIDTH (meters): 0.95 This information must also be completed	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.95 This information to must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Conservation Tillage	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River (R) and River (R) and	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY LR (Per Bank) Wide >10m Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.95 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.95 LR (Most Predominant per Bank) LR (Most Predominant per Bank) Immature Forest, Wetland Open Pasture, Row Croest, Narrow Special Park, New Field Open Pasture, Row Croest, Narrow Special Park, New Field	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.95 L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Wide >10m Mature Forest, Shrub or Old Field Open Pasture Pow Creen	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Moderate 10m AVERAGE BANKFULL WIDTH (meters): 0.95 AVERAGE BANKFUL	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH ↓ R (Per Bank) ↓ L R (Most Predominant per Bank) ↓ R (Most	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) AVERAGE BANKFULL WIDTH (meters): 0.95 AVERAGE BANKFULL WIDTH (pers):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	5
COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RESIDENT OF THE STREET OF T	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	Max=30 5





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington Stream Name: Unnamed Trib. Clear Creek Section: 12

Stream Name: Unnamed Trib. Clear Creek Section: Township:

T8N Range: R2W IDEM 303(d) List: N/A OHWM Width: 18.0 feet Watershed: 05120208090 Channelized/Type: No/Natural OHWM Depth: 0.3 feet Stream Type: **Ephemeral USCOE** Jurisdiction: Yes

Evaluation Type:HHEIIDEM Jurisdiction:YesEvaluation Score:48Watershed Area:0.07 sq miLegal Drain (Y/N):NPredominant Sub:Sand/gravel

UTME: 1761123 ft **UTMN**: 14213157 ft

Stream S5-S014a – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	0	0.00	0.00
5	35	0.01	0.55
6	0	0.00	0.00
7	46	0.02	0.57
8	91	0.04	0.80
RPA 8	54	0.02	0.66

Description of Potential Impact:

Impacts to S5-S014a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor on the left bank and a moderately wide riparian zone on the left bank where Alternatives 5, 7, Preferred Alternative 8, and RPA 8 cross this headwater stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S014a are on the second page of this form.



Photograph Taken Upstream



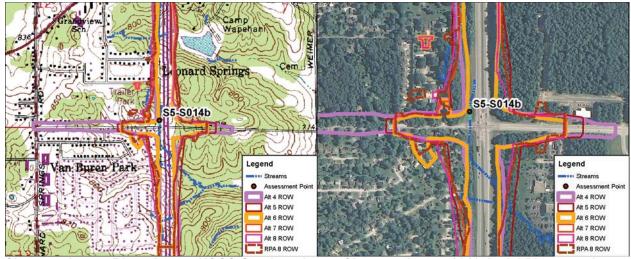
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	•	
	65-S014a RIVER BASIN White River DRAINAGE AREA (mi²)	.07
LENGTH OF STREAM REACH (ft) 200	LAT. 39.13802 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS	COMMENTS (Long: -86.57429) (Natural-Class II)	
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NAME / N	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC	OVERY
•	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
, ,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT TYPE PERCENT	HHE Metri
BLDR SLABS [16 pts]	0% SILT [3 pt] 0%	Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 15% 0%	Substra
□ □ BEDROCK [16 pt] □ □ COBBLE (65-256 mm) [12 pts] □	0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	20% MUCK [0 pts] 0%	18
SAND (<2 mm) [6 pts]	65% ARTIFICIAL [3 pts] 0%	
Total of Percentages of	0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock _ SCORE OF TWO MOST PREDOMINATE SUBS		
. Maximum Pool Depth (Measure the m	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
	d culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):	Bankfu
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW = 18'/0.3'	AVERAGE BANKFULL WIDTH (meters): 5.48	30
	, 1	
	This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODF RIPARIAN WIDTH	PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
V Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5-10m	Field	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Cr	op
None	Fenced Pasture Mining or Construction	
COMMENTS		_
· ·	aluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated poo	Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral))
COMMENTS_		L
SINUOSITY (Number of ben <u>ds</u> p	per 61 m (200 ft) of channel) (Check ONLY one box):	
None 0.5	1.0 1.5 2.0 2.5 3.0 >3	
	1.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/1	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also I	oe Completed):
QHEI PERFORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek (>2 miles) CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENT	IRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Townsh	p / City:
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: Photograph Information:	04/19/12 Quantity: 0.20
Elevated Turbidity? (Y/N): N Canopy (% open): 15%	
Were samples collected for water chemistry? (Y/N): (Note lab	sample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, p	lease explain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field data s Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed	collections optional. NOTE: all voucher samples must be labeled with the site theets from the Primary Headwater Habitat Assessment Manual) served? (Y/N) N Voucher? (Y/N) N Vou
See Stream Assessment S5-S014a for site top	

Reset Form



Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section: 12

 Quarter:
 SE
 Township:
 T8N

 Range:
 R2W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120208090
 OHWM Width:
 1.1 feet

Channelized/Type:Yes/Concrete GutterOHWM Depth:0.2 feetStream Type:EphemeralUSCOE Jurisdiction:NoEvaluation Type:HHEIIDEM Jurisdiction:No

Evaluation Score: 12 Watershed Area: 0.06 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1761348 ft **UTMN**: 14212859 ft

Stream S5-S014b - Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	138	0.01	0.06
5	138	0.01	0.11
6	138	0.01	0.01
7	138	0.01	0.11
8	138	0.01	0.11
RPA 8	138	0.01	0.11

Description of Potential Impact:

Impacts to S5-S014b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S014b are on the second page of this form.



Photograph Taken Upstream



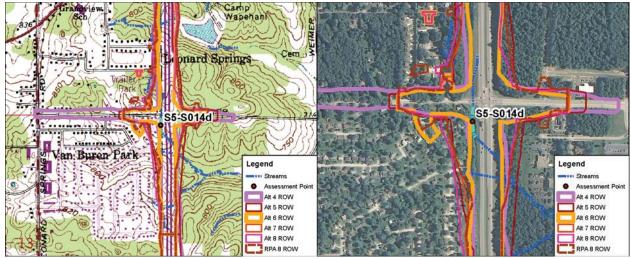
Photograph Taken Downstream



SITE NAME / OCATION 1-69 Section 5	
SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S014b RIVER BASIN White River DRAINAGE AREA (mi²)	0.06
LENGTH OF STREAM REACH (ft) 137 LAT. 39.13720 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57350) (Concrete Gutter-Modified CI	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	ı HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts] O%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	IVIAX - 4
☐ GRAVEL (2-64 mm) [9 pts]	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.1'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.1'/0.2' AVERAGE BANKFULL WIDTH (meters): OHW 1.1'/0.2' AVERAGE BANKFULL WIDTH (meters): O.34 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY Urban or Industrial Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.34 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.1'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFUL WIDTH (meters): AVERAGE BANKFULL	Width Max=30
AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.34	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30 5

ADDITIONAL STREAM INF	ORMATION (This Information Must	Also be Completed):		55-50140
QHEI PERFORME	ED? - Yes No QHEI Score	(If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM I WWH Name: Clear Cre CWH Name: EWH Name:	DESIGNATED USE(S) ek		Distance from Evaluate Distance from Evaluated Distance from Evaluated	d Stream _
MAPPING: ATTAC	CH COPIES OF MAPS, INCLUDING TH	HE <u>ENTIRE</u> WATERSHEI	DAREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name:	Bloomington	NRCS Soil Map F	Page: NRCS Soil	Map Stream Order
County: Monroe	т	ownship / City:Van B	uren	
MISCELLANEOUS Base Flow Conditions? (Y/N Photograph Information:		04/19/12	Quantity: 0.20	
Elevated Turbidity? (Y/N): _ Were samples collected for Field Measures: Temp (°	water chemistry? (Y/N): N (No	pH (S.U.)	and attach results) Lab Nui	
	sentative of the stream (Y/N) Y I	f not, please explain:		
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Observed Comments Regarding Biolog	(If Yes, Record all observations. Vo ID number. Include appropriate field Voucher? (Y/N) N Salamand 1? (Y/N) N Voucher? (Y/N) N	•	imary Headwater Habitat Ass Voucher? (Y/N)	
	AND NARRATIVE DESCRIPT dmarks and other features of intere			
FLOW S	ee Stream Assessmen 5-S014b for site to erial photograph, a	opographic m	_	

Reset Form



Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

13

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section:

 Quarter:
 NE
 Township:
 T8N

 Range:
 R2W
 IDEM 303(d) List:
 N/A

Watershed:05120208090OHWM Width:3.1 feetChannelized/Type:Yes/Dump Rock GutterOHWM Depth:0.6 feet

Stream Type:EphemeralUSCOE Jurisdiction:NoEvaluation Type:HHEIIDEM Jurisdiction:No

Evaluation Score: 12 **Watershed Area:** 0.06 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1761346 ft **UTMN**: 14212499 ft

Stream S5-S014d - Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	320	0.02	0.15
5	320	0.02	0.15
6	320	0.02	0.15
7	320	0.02	0.15
8	320	0.02	0.15
RPA 8	320	0.02	0.15

Description of Potential Impact:

Impacts to S5-S014d for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S014d are on the second page of this form.



Photograph Taken Upstream

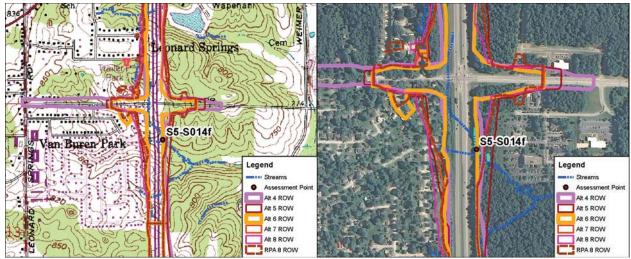




SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S014d RIVER BASIN White River DRAINAGE AREA (mi²) 0.	06
LENGTH OF STREAM REACH (ft) 200 LAT. 39.13621 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57351) (Dump Rock Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metric Points
BLDR SLABS [16 pts]	romi
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	IIIUX - 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] O% ARTIFICIAL [3 pts]	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfu
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 3.1'/0.6' AVERAGE BANKFULL WIDTH (meters): 0.95	_
COMMENTS OHW 3.170.6 AVERAGE BANKFULL WIDTH (meters): 0.95	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Field Field Urban or industrial	_
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	þ
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS_	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	
0.5 1.5 2.5 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STRE	S5-S014 c
QHEI PER	RFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNST / WWH Name: Cl CWH Name: EWH Name:	REAM DESIGNATED USE(S) lear Creek Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
	: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle N	Name: Bloomington NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe	Township / City: Van Buren
MISCELLA Base Flow Condition	V 0.000
Photograph Informati	ion:
Elevated Turbidity?	(Y/N): N Canopy (% open): 80%
Were samples collec	cted for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reac	h representative of the stream (Y/N) Y If not, please explain:
Additional comments	s/description of pollution impacts:
Performed? (Y/N): _ Fish Observed? (Y/N Frogs or Tadpoles C Comments Regarding	Noserved? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N)
	VING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): tant landmarks and other features of interest for site evaluation and a narrative description of the stream's location See Stream Assessment Form S5-S014d for site topographic map, aerial photograph, and resource photographs

Reset Form



Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section: 13

 Quarter:
 NE
 Township:
 T8N

 Range:
 R2W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120208090
 OHWM Width:
 2.3 feet

Channelized/Type:No/NaturalOHWM Depth:0.5 feetStream Type:EphemeralUSCOE Jurisdiction:YesEvaluation Type:HHEIIDEM Jurisdiction:Yes

Evaluation Score: 54 **Watershed Area:** 0.06 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Sand/gravel

UTME: 1761646 ft **UTMN**: 14211966 ft

Stream S5-S014f - Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	318	0.02	0.71	
5	440	0.02	1.07	
6	243	0.01	0.26	
7	332	0.02	0.94	
8	331	0.02	0.94	
RPA 8	335	0.02	0.94	

Description of Potential Impact:

Impacts to S5-S014f for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor on the left bank and a narrow riparian zone on the right bank where the Alternatives cross this stream. The adjacent floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S014f are on the second page of this form.



Photograph Taken Upstream



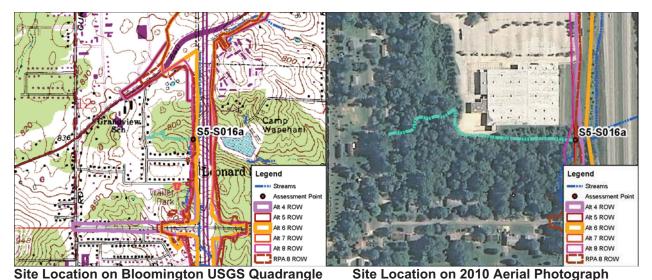
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5		<u> </u>		<u> </u>	
SITE NUMBER S	5-S014f RIVER BA	White River	DRAINA	GE AREA (mi²) 0	.06
LENGTH OF STREAM REACH (ft) 200	LAT. 39.13474 LON	IG. RIVE	R CODE	RIVER MILE	
DATE 04/23/12 SCORER KSS	COMMENTS (L	.ong: -86.57246) (N	atural-Class II		
NOTE: Complete All Items On This Form	ı - Refer to "Field Eva	luation Manual for C	hio's PHWH Str	eams" for Instr	uctions
STREAM CHANNEL NONE / NAMED NAMED NONE / NAMED NA	URAL CHANNEL	ECOVERED RECO	OVERING REC	ENT OR NO REC	OVERY
SUBSTRATE (Estimate percent of every state of the st					
(Max of 32). Add total number of signific TYPE P	ant substrate types found ERCENT TYPE	(Max of 8). Final metric s		es A & B. PERCENT	HHE Metri
BLDR SLABS [16 pts]	0%	SILT [3 pt]		5%	Point
BOULDER (>256 mm) [16 pts]	0%	LEAF PACK/WOODY		0%	Substra
BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts]	20%	FINE DETRITUS [3 pt CLAY or HARDPAN [0		0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	30%	MUCK [0 pts]	5 pt]	0%	40
SAND (<2 mm) [6 pts]	45%	ARTIFICIAL [3 pts]		0%	19
Total of Percentages of 2	0.00% ^(A)	Substrate Percentage Check 100	10/2	(B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock BCORE OF TWO MOST PREDOMINATE SUBS			OF SUBSTRATE	TYPES: 4	
Maximum Pool Depth (Measure the m		in the 61 meter (200 ft)	ovaluation reach a	t the time of	Pool Dep
evaluation. Avoid plunge pools from road				t the time of	Max = 3
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]		> 5 cm - 10 cm [15 pt < 5 cm [5 pts]	s]		
> 10 - 22.5 cm [25 pts]		NO WATER OR MOI	ST CHANNEL [0 pt	s]	30
COMMENTS		MAXIMUM PO	OL DEPTH (centin	neters): 26	
			` .		
BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	average of 3-4 measure	ments) (Check > 1.0 m - 1.5 m (> 3' 3	ONLY one box):		Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	7	≤ 1.0 m (<=3' 3") [5 pt			Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]					
COMMENTS OHW = 2.3'/0.5'		AVERAGE BA	NKFULL WIDTH (n	neters): 0.70	5
	This informatio	n <u>must</u> also be comple	ted		
RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH	LAIN QUALITY ☆NO	DTE: River Left (L) and F		downstream☆	
L R (Per Bank)	FLOODPLAIN QUALIT	<u>⊤</u> minant per Bank)	L R		
Wide >10m	Mature Fore	st, Wetland	Cons	ervation Tillage	
Moderate 5-10m	Field	orest, Shrub or Old	□□ Urba	n or Industrial	
☐ ✓ Narrow <5m		Park, New Field	Oper	Pasture, Row Cro	pp
None	Fenced Past		□□ Minin	g or Construction	
COMMENTS					-
FLOW REGIME (At Time of Eva	luation) (Check ONLY or	ne <u>box</u>):			
Stream Flowing	, , , , , , , , , , , , , , , , , , ,		I, isolated pools, no	,	1
Subsurface flow with isolated poor COMMENTS_	າວ (ກາເບາວແປສາ)	Dry channel, i	no water (Ephemei	ai)	-
SINUOSITY (Number of ben <u>ds p</u>	er 61 m (200 ft) of change	al) (Check ONI Vana h	JV).		
None (Number of bends)	1.0	2.0	3.0)	
0.5	1.5	2.5	>3		
STREAM GRADIENT ESTIMATE					
Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft)	Moderate to	Severe	Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Comple	sted):
QHEI PERFORMED? - Yes No QHEI Score (If Ye	es, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek (>2 miles) CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATE	RSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil	Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City:	Perry
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/19/12 Photograph Information:	. Quantity: 0.20
Elevated Turbidity? (Y/N): N Canopy (% open): 10%	
N	or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S	S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please expla	ain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field data sheets from Voucher? (Y/N) N Salamanders Observed? (Y/N)	
DRAWING AND NARRATIVE DESCRIPTION OF STRE Include important landmarks and other features of interest for site evaluar	<u> </u>
See Stream Assessment Form	
S5-S014f for site topographi	c map,
aerial photograph, and resou	rce photographs

Reset Form



Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek

Quarter: SE Range: R2W

Watershed: 05120208090 Channelized/Type: Yes/Dump Rock Gutter

Stream Type: Ephemeral HHEI **Evaluation Type:**

Evaluation Score: 28 Legal Drain (Y/N): Ν

UTME: 1761231 ft **UTMN:** 14214555 ft **USGS** Quadrangle: Bloomington

Section: 12 Township: T8N IDEM 303(d) List: N/A OHWM Width: 6.0 feet OHWM Depth: 1.0 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes 0.23 sq mi Watershed Area:

Predominant Sub: Artificial

Stream S5-S016a - Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	2	0.01	0.00	
5	36	0.01	0.00	
6	0	0.00	0.00	
7	31	0.01	0.00	
8	73	0.01	0.10	
RPA 8	19	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S016a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The artificial channel consists of dump rock gutter located at the foot of a steep man-made embankment. This channel eventually flows to Weimer Lake (a Section 303(d) listed water). The riparian buffer is wide where the Alternatives cross this channel. The floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S016a are on the second page of this form.



Photograph Taken Upstream



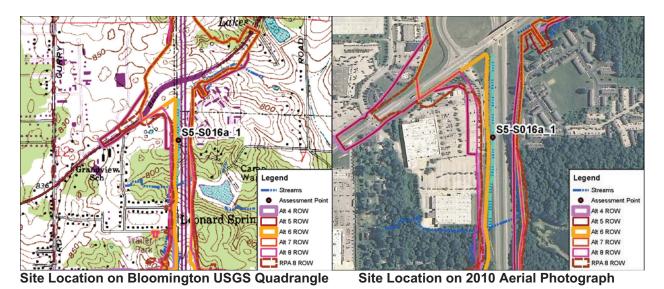
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S016a RIVER BASIN White River DRAINAGE AREA (mi²)	0.23
LENGTH OF STREAM REACH (ft) 200 LAT. 39.14186 LONG. RIVER CODE RIVER MILE	
DATE 10/10/11 SCORER DEW/KSS COMMENTS (Long: -86.57389) (Dump Rock Gutter-Modified	Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] O LEAF PACK/WOODY DEBRIS [3 pts] O O O O O O O O O O O O O	Substrate
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ ☐ 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0% ARTIFICIAL [3 pts] 90%	8
Critical Control (*2 mini) [o pto]	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 30
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6' / 1' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6' / 1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6' / 1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m V V Immature Forest, Shrub or Old Field Urban or Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6' / 1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Place of the strength of the st	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream in the completed in the complete in the c	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6' / 1' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream ৵ RIPARIAN WIDTH L R (Per Bank)	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6' / 1' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream ৵ RIPARIAN WIDTH L R (Per Bank) Vide >10 m	Width Max=30 20

ADDITIONAL STREA	M INFORMATION (This Information N	Must Also be Completed):		S5-S016a
QHEI PERI	FORMED? - Yes V No QHEI Sc	core (If Yes, Atta	ch Completed QHEI Form)
DOWNSTR WWH Name: Cle CWH Name: EWH Name:	REAM DESIGNATED USE(S) ear Creek		_ Distance from Evaluated _ Distance from Evaluated _ Distance from Evaluated	l Stream _
MAPPING:	ATTACH COPIES OF MAPS, INCLUDIN	IG THE <u>ENTIRE</u> WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	ame: Bloomington	NRCS Soil Map F	Page: NRCS Soil I	Map Stream Order
County: Monroe		Township / City:Van Bi	uren	
MISCELLA Base Flow Conditions Photograph Information	s? (Y/N): Y Date of last precipita	ation:	Quantity:	
Elevated Turbidity? (Y/N): N Canopy (% open):	25%		
Were samples collect	ted for water chemistry? (Y/N):	(Note lab sample no. or id. a	and attach results) Lab Nur	mber:
Field Measures: T	emp (°C) Dissolved Oxygen (n	ng/l) pH (S.U.)	Conductivity (µmh	os/cm)
Is the sampling reach	representative of the stream (Y/N) Y	If not, please explain:		
Additional comments	description of pollution impacts:			
	oserved? (Y/N) N Voucher? (Y/N)	e field data sheets from the Prinanders Observed? (Y/N)	mary Headwater Habitat Ass Voucher? (Y/N)	
	ING AND NARRATIVE DESCR		• —	-
_	See Stream Assessm	ent Form		
FLOW -	S5-S016a for site	topographic ma	p,	
	aerial photograph,	and resource	photographs	





Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek Quarter: NW Range: R1W

Watershed: 05120208090 Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 12 Legal Drain (Y/N): Ν

UTME: 1761370 ft **UTMN:** 14215533 ft

USG	S Quadrangle:	Bloomington

Section: 7 Township: T8N IDEM 303(d) List: N/A OHWM Width: 3.5 feet OHWM Depth: 0.1 feet **USCOE Jurisdiction:** No **IDEM Jurisdiction:** No

Watershed Area: 0.02 sq mi **Predominant Sub:** Artificial

Stream S5-S016a_1 – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	1803	0.13	0.00		
5	1803	0.13	0.00		
6	1803	0.13	0.00		
7	1803	0.13	0.00		
8	1803	0.13	0.00		
RPA 8	1803	0.13	0.00		

Description of Potential Impact:

Impacts to S5-S016a 1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S016a 1 are on the second page of this form.



Photograph Taken Upstream

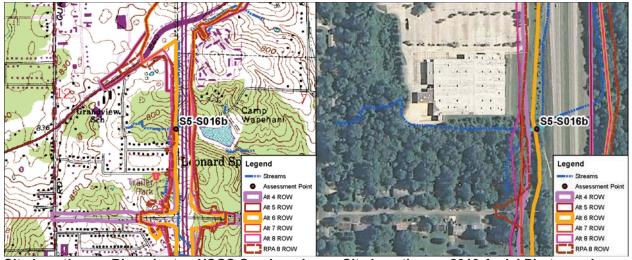


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBERS5-S016a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.14454 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57338) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% DEBRIS [3 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Total of Percentages of Control (A) Substrate Percentage (B)	
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
OTHER ORIGINAL	
COMMENTS OHW 3.271.0 AVERAGE BANKFULL WIDTH (meters): 0.98	5
This information must also be completed	
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{PLOODPLAIN QUALITY}}	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH LR (Most Predominant per Bank) LR	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) Immature Forest, Wetland Woderate 5-10m L R (Most Predominant per Bank) L R (Union Predominant per Bank) Wetland Woderate 5-10m	.ob
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m Nore RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Field Residential, Park, New Field Open Pasture, Row Construction Fenced Pasture Mining or Construction	·
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (John L R	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field Fenced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	1
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Company of Construction Comments Mining or Construction Comments	1
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **NOTE: River Left (L) and Right (R) as looking downstream **Conservation Tillage **Onservation Tillage **Onservation Tillage **Onservation Tillage **Onservation Tillage **Open Pasture, Row Conservation **Open Pasture, Ro	1
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN WIDTH FLOODPLAIN QUALITY Note: Residential Quality Mature Forest, Wetland Conservation Tillage I Residential, Park, New Field Open Pasture, Row Conservation Open	1
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	1
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN WIDTH FLOODPLAIN QUALITY Note: Residential Quality Mature Forest, Wetland Conservation Tillage I Residential, Park, New Field Open Pasture, Row Conservation Open	t)





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section:

12 Quarter: SE Township: T8N Range: R2W IDEM 303(d) List: N/A

Watershed: 05120208090 OHWM Width: 3.5 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.1 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: Watershed Area: 0.23 sq mi 12 Legal Drain (Y/N): Ν **Predominant Sub:** Artificial

UTME: 1761308 ft **UTMN:** 14214559 ft

Stream S5-S016b - Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	106	0.01	0.09	
5	106	0.01	0.09	
6	72	0.01	0.08	
7	106	0.01	0.09	
8	106	0.01	0.09	
RPA 8	106	0.01	0.09	

Description of Potential Impact:

Impacts to S5-S016b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter that carries flow during storm events from S5-S016a. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained utility line ROW. Photographs taken downstream in the area where these Alternatives cross S5-S016b are on the second page of this form.



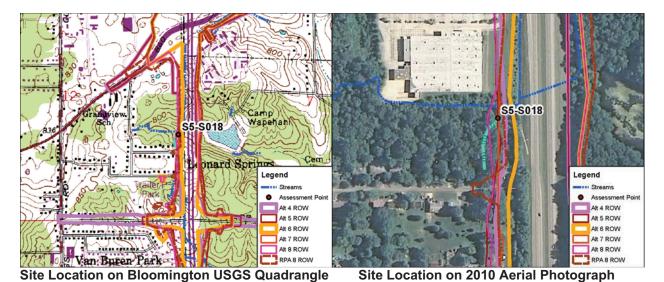
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S016b RIVER BASIN White River DRAINAGE AREA (mi²) 0.23	3
LENGTH OF STREAM REACH (ft) 100 LAT. 39.14187 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57361) (Concrete Gutter-Modified Class	; I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct	tions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER MODIFICATIONS:	'ERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt]	Point
BOULDER (>256 mm) [16 pts]	Substrat
	Max = 4
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts]	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	ool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW 3.2'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.98	5
AVERAGE BANKFULL WIDTH (Illeters).	<u> </u>
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Moderate 5-10m Infinitive Forest, Shirth of Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
None Fenced Pasture Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS_	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
✓ None	
0.5 1.5 2.5 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)	Α

ADDITIONAL STREAM	M INFORMATION (This Information M	lust Also be Completed):		S5-SU16D
QHEI PERF	ORMED? - Yes V No QHEI Sco	ore(If Yes, Att	ach Completed QHEI Forr	n)
DOWNSTRE WWH Name: Clea CWH Name: EWH Name:	EAM DESIGNATED USE(S) or Creek		Distance from Evaluate Distance from Evaluate Distance from Evaluate_	ed Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING	G THE <u>ENTIRE</u> WATERSHE	DAREA. CLEARLY MARK	(THE SITE LOCATION
USGS Quadrangle Na	me: Bloomington	NRCS Soil Map	Page: NRCS Soi	I Map Stream Order
County: Monroe		_ Township / City: Van B	Buren	
Field Measures: Te	Date of last precipitation: N Canopy (% open):	65% (Note lab sample no. or id.	Quantity: 0.02 and attach results) Lab No	umber:
Additional comments/d				
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Observed: Comments Regarding	(If Yes, Record all observations ID number. Include appropriate N Voucher? (Y/N) Served? (Y/N) Voucher? (Y/N) N	•	rimary Headwater Habitat A Voucher? (Y/N)	voucher? (Y/N)
	NG AND NARRATIVE DESCRI			
FLOW -	See Stream Assessm S5-S016b for site aerial photograph,	topographic m	_	

Reset Form



Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Clear CreekSection:12Quarter:SETownship:T8NPage 1Page 2Page 3Page 3

Range: R2W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120208090 3.0 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Stream Type: **Ephemeral USCOE** Jurisdiction: Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 26 Watershed Area: 0.01 sq mi

Legal Drain (Y/N): N Predominant Sub: Sand

UTME: 1761226 ft **UTMN**: 14214497 ft

Stream S5-S018 – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	0	0.00	0.01	
5	60	0.01	0.01	
6	0	0.00	0.01	
7	45	0.01	0.01	
8	140	0.01	0.19	
RPA 8	8	0.01	0.01	

Description of Potential Impact:

Impacts to S5-S018 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate of S5-S006a is primarily of sand. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of immature forest and an old field where it enters the utility line ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S018 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

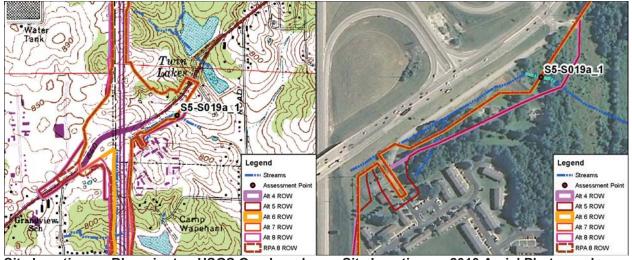


SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S018 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.14170 LONG. RIVER CODE RIVER MILE	
DATE 10/10/11 SCORER DEW/KSS COMMENTS (Long: -86.57390) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 15% CLAY or HARDPAN [0 pt]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ ☐ O% ☐ ☐ O% ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	21
Total of Percentages of 15 00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 mp 4 mp /> 4.01\ [20 mtg]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.00 L R (Most Predominant per Bank) L R (Most Predominant per Bank) V Wide > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.00 L R (Per Bank) L R (Most Predominant per Bank) V Wide > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.00 L R (Par Bank) L R (Most Predominant per Bank) V Wide > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.00 Urban or Industrial	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream* RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Mature Forest, Wetland Moderate 5-10m Narrow < 5m Residential, Park, New Field Open Pasture, Row Cr	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
SINUOSITY (Number of bends per 61 m (200 ft) of channel) Section Comments Comment	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow < 5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.0 None 1.0 COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.00 AVERAGE BANKFULL WIDTH (personal part of the strength of the strengt	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S018
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Atta	ch Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map P	age: NRCS Soil Map Stream Order
County: Monroe Township / City: Van Bu	ıren
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last precipitation:	Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 5%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. a	and attach results) Lab Number:
	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Prince Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Aquatic Macroinvertebrat Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM Relational Include important landmarks and other features of interest for site evaluation and the strength of the prince of the p	Voucher? (Y/N) N Vouche
See Stream Assessment Form S5-S018 for site topographic map	

S5-S018 for site topographic map, aerial photograph, and resource photographs





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream US

Stream Name: Unnamed Trib. Clear Creek NW Range: R1W

Watershed: 05120208090
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 56

Legal Drain (Y/N): N **UTMN:** 14217104 ft

USGS Quadrangle: Bloomington

Section: 7 Township: T8N IDEM 303(d) List: N/A OHWM Width: 9.5 feet OHWM Depth: 0.8 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.14 sq mi

Watershed Area: 0.14 sq mi
Predominant Sub: Sand/artificial

Stream S5-S019a_1 – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	159	0.03	0.07
5	159	0.03	0.07
6	79	0.02	0.00
7	79	0.02	0.00
8	79	0.02	0.00
RPA 8	79	0.02	0.00

Description of Potential Impact:

Impacts to S5-S019a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The stream channel consists of natural sand bottom and riprap lines banks. There is a narrow riparian buffer associated with both banks where the Alternatives cross this ditch. A residential yard comprises the right floodplain area, while shrubby habitat exists on the left. This stream flows into a culvert outside the study limits. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S019a_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

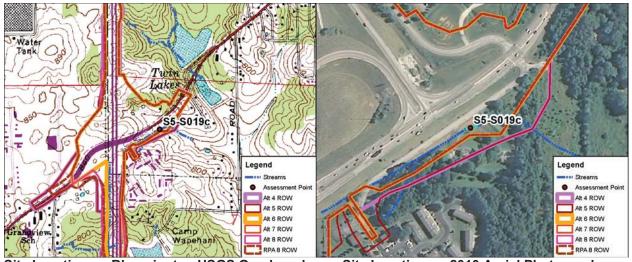


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5		
	65-S019a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	.14
LENGTH OF STREAM REACH (ft) 158	LAT. 39.14884 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS	COMMENTS (Long: -86.56895) (Natural-Class II)	
NOTE: Complete All Items On This For	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NA MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC	OVERY
	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
, , ,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT TYPE PERCENT	HHE Metri
BLDR SLABS [16 pts]	0% SILT [3 pt] 0%	Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0%	Substra
□ □ BEDROCK [16 pt] □ COBBLE (65-256 mm) [12 pts] □	0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	0% MUCK [0 pts] 0%	44
SAND (<2 mm) [6 pts]	60% ARTIFICIAL [3 pts] 40%	11
Total of Percentages of	0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock _ SCORE OF TWO MOST PREDOMINATE SUBS		
. Maximum Pool Depth (Measure the n	maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from roa	nd culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 15	
BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):	Bankfu
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW = 9.5'/0.8'	AVERAGE BANKFULL WIDTH (meters): 3.00	20
		20
	This information must also be completed	
RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH	PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5-10m	Field	
✓ ✓ Narrow <5m	Residential, Park, New Field Open Pasture, Row Cr	op
None	Fenced Pasture Mining or Construction	
COMMENTS		_
,	aluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated poor	Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral))
COMMENTS_		L
SINUOSITY (Number of ben <u>ds</u>	per 61 m (200 ft) of channel) (Check ONLY one box):	
None 0.5	1.0 1.5 2.0 2.5 3.0 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe Severe (10 ft/1	00 ft)

Save as pdf





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section: 7

 Quarter:
 NW
 Township:
 T8N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

OHWM Width: Watershed: 05120208090 1.5 feet Channelized/Type: Yes/Roadside Ditch **OHWM Depth:** 0.4 feet Stream Type: **USCOE** Jurisdiction: Ephemeral Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 34 **Watershed Area:** 0.14 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Clay

UTME: 1762405 ft **UTMN**: 14217059 ft

Stream S5-S019c – Modified Class II PHWH			
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acre			
4	64	0.01	0.00
5	64	0.01	0.00
6	64	0.01	0.00
7	64	0.01	0.00
8	64	0.01	0.00
RPA 8	64	0.01	0.00

Description of Potential Impact:

Impacts to S5-S019c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This segment of stream is captured by a roadside ditch that eventually flows along Oakdale Drive to an unnamed tributary to Clear Creek (i.e., S5-S019a). Flow is interrupted by a number of culverts under driveways, as well as under Oakdale Drive. There is no riparian buffer associated with this clay bottom ditch. The floodplain consists of the urban roadway on the left bank and residential on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S019c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

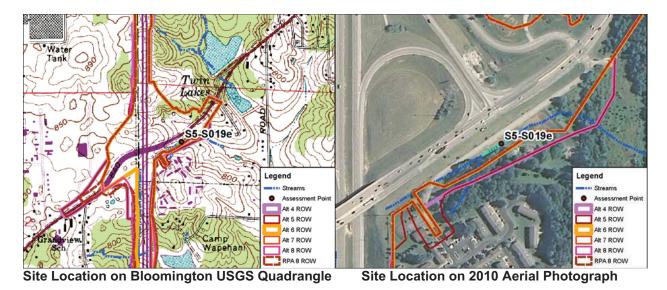
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S019c RIVER BASIN White River DRAINAGE AREA (mi²)	0.14
LENGTH OF STREAM REACH (ft) 65 LAT. 39.14872 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56970) (Roadside Ditch-Modified Class	ss II)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute 1.	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] 0% SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 5%	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ SAND (<2 mm) [6 pts] ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	14
Total of Percentages of Ongo (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	^ ' '
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 6	
	Rankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ###	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.45 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): O.45 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): U.45 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cr V None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and	Width Max=30
AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row Cr Violating Tenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30
A 0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (> 9' 7" - 4' 8") [5 pts] > 1.0 m (>	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row Cr Violating Tenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	\$5-\$0190
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach C	Completed QHEI Form)
CWH Name: _ D	bistance from Evaluated Streamistance from Evaluated Streamistance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AR	EA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map Page	: 32 NRCS Soil Map Stream Order
County: Monroe Township / City: Perry	
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/12/06	0.20
Base Flow Conditions: (TM) Bate of last precipitation	Quantity: 0.39
Photograph Information: 153 Upstream / 154 Downstream / 155 Right Bank / 156 Left Bar	ık
Elevated Turbidity? (Y/N): _ Canopy (% open): _ 80%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and	attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. No ID number. Include appropriate field data sheets from the Primar Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertebrates (Comments Regarding Biology:	Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REA	

FLOW -

See Stream Assessment Form S5-S019c for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream Stream Unnamed Trib. Clear Creek

Quarter: NW Range: R1W

Watershed: 05120208090
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Type: HHEI
Evaluation Score: 12
Legal Drain (Y/N): N

UTME: 1762231 ft **UTMN**: 14216958 ft

USGS Quadrangle: Bloomington

Section: 7 Township: T8N IDEM 303(d) List: N/A OHWM Width: 1.5 feet **OHWM Depth:** 0.4 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.14 sq mi

Watershed Area: 0.14 sq mi
Predominant Sub: Artificial

Stream S5-S019e – Modified Class I PHWH				
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (ac				
4	184	0.01	0.14	
5	184	0.01	0.14	
6	184	0.01	0.04	
7	184	0.01	0.04	
8	184	0.01	0.04	
RPA 8	184	0.01	0.04	

Description of Potential Impact:

Impacts to S5-S019e for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This segment of stream is captured by a concrete gutter that eventually flows along Oakdale Drive to an unnamed tributary to Clear Creek (i.e., S5-S019a). Flow is interrupted by a number of culverts under driveways, as well as under Oakdale Drive. The predominant substrate is artificial. There is no riparian buffer along the left bank and a moderately wide riparian zone on the right bank of this ditch. The floodplain consists of the urban roadway on the left bank and residential on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S019e are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

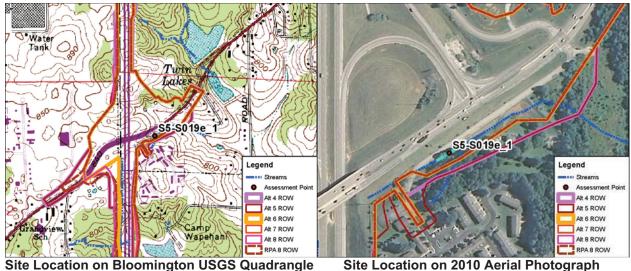
12

SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S019e DRAINAGE AREA (mi²) 0.14 SITE NUMBER 200 LAT. **39.14844** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.57032) (Concrete Gutter-Modified Class I) DATE 05/12/06 A Rogers SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 0% 100% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 1 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S019e
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map F	Page: 32 NRCS Soil Map Stream Order
County: Monroe Township / City: Perry	
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/12/06	Quantity: 0.39
Photograph Information: 153 Upstream / 154 Downstream / 155 Right Bank / 156 Left	Bank
Elevated Turbidity? (Y/N): _ Canopy (% open): 80%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional	I. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the Principle of the	Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM For Include important landmarks and other features of interest for site evaluation and the street interest for	· —
See Stream Assessment Form S5-S019e for site topographic material photograph, and resource	

Save as pdf

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek Quarter: NW

Range: R1W Watershed: 05120208090

Channelized/Type: Yes/Concrete Gutter **Stream Type:** Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 12 Legal Drain (Y/N): Ν

UTME: 1762054 ft **UTMN:** 14216853 ft **USGS** Quadrangle: Bloomington

Section: 7 Township: T8N IDEM 303(d) List: N/A OHWM Width: 1.5 feet OHWM Depth: 0.4 feet **USCOE** Jurisdiction: No **IDEM Jurisdiction:** No

0.14 sq mi Watershed Area: **Predominant Sub:** Artificial

Stream S5-S019e_1 – Modified Class I PHWH				
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (ac				
4	167	0.01	0.32	
5	167	0.01	0.32	
6	167	0.01	0.15	
7	167	0.01	0.15	
8	167	0.01	0.15	
RPA 8	167	0.01	0.15	

Description of Potential Impact:

Impacts to S5-S019e 1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This segment of stream is captured by a concrete gutter that eventually flows along Oakdale Drive to an unnamed tributary to Clear Creek (i.e., S5-S019a). Flow is interrupted by a number of culverts under driveways, as well as under Oakdale Drive. The predominant substrate is artificial. There is no riparian buffer along the left bank and a moderately wide riparian zone on the right bank of this ditch. The floodplain consists of the urban roadway on the left bank and residential on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S019e 1 are on the second page of this form.



Photograph Taken Upstream



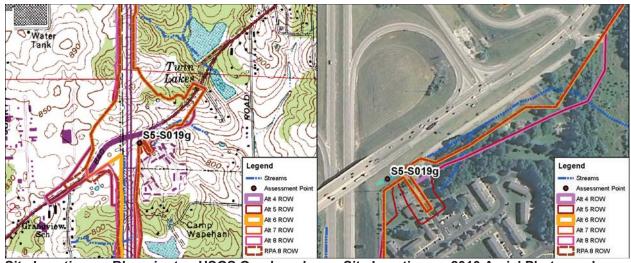
Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S019e_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.14
LENGTH OF STREAM REACH (ft) 167 LAT. 39.14816 LONG. RIVER CODE RIVER MILE	
DATE 02/19/13 SCORER DEW COMMENTS (Long: -86.57092) (Concrete Gutter-Modified Cla	ıss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Substate Perceptors	
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
 	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	•
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Bankful Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.45	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ARIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Nature Forest, Wetland RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m None Residential, Park, New Field Mining or Construction	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Wetland Moderate 5-10 m Mature Forest, Shrub or Old Field Narrow <5m Open Pasture, Row Cr	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY Residential Personal Conservation Tillage Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Residential, Park, New Field Open Pasture, Row Cr None Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.45 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY % NOTE: River Left (L) and Right (R) as looking downstream % RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (M	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.45 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Wide >10m Mature Forest, Wetland Conservation Tillage I Urban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr None Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.45 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Mature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermittent COMMENTS Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30

ADDITIONAL STREAM INFORMATION (This	s Information Must Also be Complete	<u>ed):</u>	55-50	196
QHEI PERFORMED? - Yes	No QHEI Score(If Yes	, Attach Completed (QHEI Form)	
DOWNSTREAM DESIGNATED US WWH Name: Clear Creek CWH Name: EWH Name:	EE(S)	_ Distance from	n Evaluated Stream Evaluated Stream Evaluated Stream	
MAPPING: ATTACH COPIES OF MA	APS, INCLUDING THE ENTIRE WATER	SHED AREA. CLEAF	RLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Bloomington	NRCS Soil N	Nap Page: 32	IRCS Soil Map Stream Order	
County: Monroe	Township / City:	erry		
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date Photograph Information:	of last precipitation: 02/19/13	Quantity:_	0.02	
Elevated Turbidity? (Y/N): N Car	nopy (% open): 80%			
Were samples collected for water chemistry?	(Y/N): N (Note lab sample no. o	or id. and attach resul	ts) Lab Number:	
		J.) Conduc	ctivity (µmhos/cm)	
Is the sampling reach representative of the str	ream (Y/N) If not, please explain	n:		
Additional comments/description of pollution i	mpacts:			
BIOTIC EVALUATION				
· /	I all observations. Voucher collections op		•	ne site
Fish Observed? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Vo	,	l) Voucher? (tebrates Observed? (/	
Comments Regarding Biology:	, , , , , , , , , , , , , , , , , , , ,		,	_
DRAWING AND NARRAT	IVE DESCRIPTION OF STREA	M REACH (This	must be completed):	_
Include important landmarks and othe				n
See Stream	Assessment Form			
	for site topograph	ic map,		
aerial pho	tograph, and resour	ce photogra	aphs	



Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

7

T8N

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section: Township:

Range: R1W IDEM 303(d) List: N/A Watershed: 05120208090 OHWM Width: 1.5 feet Channelized/Type: Yes/Roadside Ditch OHWM Depth: 0.4 feet **USCOE** Jurisdiction: **Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No

Evaluation Score: 34 Watershed Area: 0.14 sq mi
Legal Drain (Y/N): N Predominant Sub: Clay

UTME: 1761686 ft **UTMN**: 14216650 ft

Stream S5-S019g – Modified Class II PHWH				
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acr				
4	199	0.01	0.00	
5	199	0.01	0.00	
6	170	0.01	0.00	
7	170	0.01	0.00	
8	170	0.01	0.00	
RPA 8	170	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S019g for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This segment of stream is captured by a roadside ditch that eventually flows along Oakdale Drive to an unnamed tributary to Clear Creek (i.e., S5-S019a). Flow is interrupted by a number of culverts under driveways, as well as under Oakdale Drive. There is no riparian buffer associated with this clay bottom ditch. The floodplain consists of the urban roadway on the left bank and commercial on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S019g are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

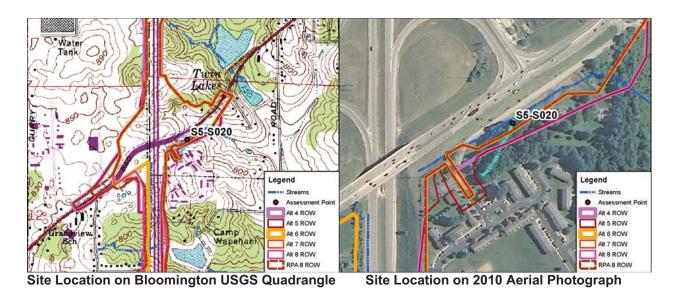
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S019g RIVER BASIN White River DRAINAGE AREA (mi²)	0.14
LENGTH OF STREAM REACH (ft) 200 LAT. 39.14760 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.57224) (Roadside Ditch-Modified Cla	ss II)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	1 Onit.
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 40
COBBLE (65-256 mm) [12 pts]	
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0% 0%	14
Total of Percentages of 0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 6	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.45	5
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Immature Forest, Shrub or Old	
Field Field Urban or industrial	ron
Narrow <5m Field Orban or industrial Residential, Park, New Field Open Pasture, Row C	rop
Field Urban or industrial	
Narrow <5m	
Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten	1
Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	1
Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	1
Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	1
Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 None 1.0 2.0 3.0 None 1.5 2.5 3	1
Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	t)

	S5-S019
ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attact	h Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Clear Creek	Distance from Evaluated Stream
CWH Name: _	Distance from Evaluated Stream _
EWH Name: _	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED A	AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map Page	ge: 32 NRCS Soil Map Stream Order
County: Monroe Township / City: Perry	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_N _ Date of last precipitation:_ 05/12/06	Quantity: 0.39
Photograph Information: 153 Upstream / 154 Downstream / 155 Right Bank / 156 Left B	ank
Elevated Turbidity? (Y/N): N Canopy (% open): 80%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. an	nd attach results) Lab Number:
	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prim	·
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N)	Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates	s Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM RE	EACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and	a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S019g for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Clear Creek Section: 7

 Quarter:
 NW
 Township:
 T8N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120208090
 OHWM Width:
 1.3 feet

Channelized/Type: No/Natural OHWM Depth: 0.4 feet
Stream Type: Ephemeral USCOE Jurisdiction: Yes
Evaluation Type: HHEI IDEM Jurisdiction: Yes

Evaluation Secret: 20

Evaluation Score: 39 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Sand/gravel

UTME: 1762119 ft **UTMN**: 14216869 ft

Stream S5-S020 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	165	0.01	0.01
5	165	0.01	0.05
6	86	0.01	0.00
7	86	0.01	0.00
8	86	0.01	0.00
RPA 8	86	0.01	0.00

Description of Potential Impact:

Impacts to S5-S020 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor along both banks of this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S020 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



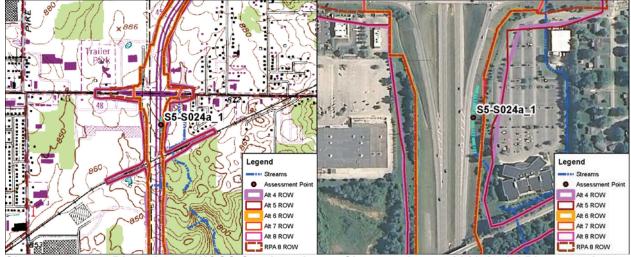
Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

	TITILI Score (sum of metrics 1, 2, 3).
SITE NAME/LOCATION I-69 Section 5	
	65-S020 RIVER BASIN White River DRAINAGE AREA (mi²) 0.0°
	LAT. 39.14820 LONG. RIVER CODE RIVER MILE
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOV
SUBSTRATE (Estimate percent of ever	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes
(Max of 32). Add total number of significa	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
	PERCENT O% SILT [3 pt] PERCENT 5%
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	0% SILT [3 pt] 5% 5% LEAF PACK/WOODY DEBRIS [3 pts] 10%
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 0%
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%
GRAVEL (2-64 mm) [9 pts]	30% MUCK [0 pts] 0%
SAND (<2 mm) [6 pts]	55% ARTIFICIAL [3 pts] 0%
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage 100% (B)
CORE OF TWO MOST PREDOMINATE SUBST	STRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4
Maximum Pool Depth (Measure the ma	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of
. ,	id culverts or storm water pipes) (Check ONLY one box):
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]
7 10 - 22.0 cm [20 pts]	NO WATER OR MOIOT CHANNEL [0 plo]
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 6
. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	≤ 1.0 m (<=3' 3") [5 pts]
, , , , , ,	
COMMENTS OHW - 1.3' / 0.4'	AVERAGE BANKFULL WIDTH (meters): 0.40
	This information must also be completed
RIPARIAN ZONE AND FLOODPI	
<u>RIPARIAN WIDTH</u>	FLOODPLAIN QUALITY
L R (Per Bank) Wide >10m	L R (Most Predominant per Bank) L R
	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old
Moderate 5-10m	Field Urban or Industrial
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop
None	Fenced Pasture Mining or Construction
COMMENTS	
ELOW DECIME (A) Time (E.)	almatical (Charle ONI) Variables.
FLOW REGIME (At Time of Evalued Stream Flowing	
FLOW REGIME (At Time of Evaluation Stream Flowing Subsurface flow with isolated pool	Moist Channel, isolated pools, no flow (Intermittent)
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent)
Stream Flowing Subsurface flow with isolated pool COMMENTS	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)
Stream Flowing Subsurface flow with isolated pool COMMENTS SINUOSITY (Number of bends per	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) per 61 m (200 ft) of channel) (Check ONLY one box): 1.0 2.0 3.0
Stream Flowing Subsurface flow with isolated pool COMMENTS SINUOSITY (Number of bends pe	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) per 61 m (200 ft) of channel) (Check ONLY one box):
Stream Flowing Subsurface flow with isolated pool COMMENTS SINUOSITY (Number of bends pool None 0.5	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) per 61 m (200 ft) of channel) (Check ONLY one box): 1.0 2.0 3.0
Stream Flowing Subsurface flow with isolated pool COMMENTS SINUOSITY (Number of bends per	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) per 61 m (200 ft) of channel) (Check ONLY one box): 1.0 2.0 3.0

ADDITIONAL STREAM	INFORMATION (This Information Must Also be Com	pleted):	120
QHEI PERFO	ORMED? - Yes / No QHEI Score (If	Yes, Attach Completed QHEI Form)	
WWH Name: Clea	EAM DESIGNATED USE(S) ar Creek	Distance from Evaluated Stream Distance from Evaluated Stream	 - -
EWH Name:		Distance from Evaluated Stream	ļ.
		TERSHED AREA. CLEARLY MARK THE SITE LOCATION	_
USGS Quadrangle Nar	me: Bloomington NRCS S	Soil Map Page: 32 NRCS Soil Map Stream Order	\dashv
County: Monroe	Township / City:	Perry	_
MISCELLAN	IEOUS		
Base Flow Conditions?	P (Y/N): N Date of last precipitation: 05/12/0	06 Quantity: 0.39	
Photograph Information	n:		
Elevated Turbidity? (Y/	/N): _ N Canopy (% open):		
Were samples collecte	ed for water chemistry? (Y/N): N (Note lab sample r	no. or id. and attach results) Lab Number:	
Field Measures: Te	mp (°C) Dissolved Oxygen (mg/l) pH	I (S.U.) Conductivity (µmhos/cm)]
Is the sampling reach r	representative of the stream (Y/N) Y If not, please ex	φlain:	
Additional comments/d	lescription of pollution impacts:		
BIOTIC EVA	ALUATION		
Performed? (Y/N): N		ns optional. NOTE: all voucher samples must be labeled with the om the Primary Headwater Habitat Assessment Manual)	site
Fish Observed? (Y/N)_ Frogs or Tadpoles Obs		(Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	
Comments Regarding	` 1 ` 1 `	vocation (TM)	
			_
			_
	NG AND NARRATIVE DESCRIPTION OF STR	· — · · ·	
include importa	nt landmarks and other features of interest for site eval	luation and a narrative description of the stream's location	
4			
FLOW -	See Stream Assessment Form		
	S5-S020 for site topographic	_	
	aerial photograph, and resou	rice buorograpus	

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Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Clear CreekSection:6Quarter:NWTownship:T8NRange:R1WIDEM 303(d) List:N/A

Watershed: 05120208090 OHWM Width: 1.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No

Evaluation Score: 12 Watershed Area: 0.04 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1762119 ft **UTMN**: 14216869 ft

Stream S5-S024a_1 – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	355	0.01	0.00
5	355	0.01	0.00
6	355	0.01	0.00
7	355	0.01	0.00
8	355	0.01	0.00
RPA 8	355	0.01	0.00

Description of Potential Impact:

Impacts to S5-S024a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S024a_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

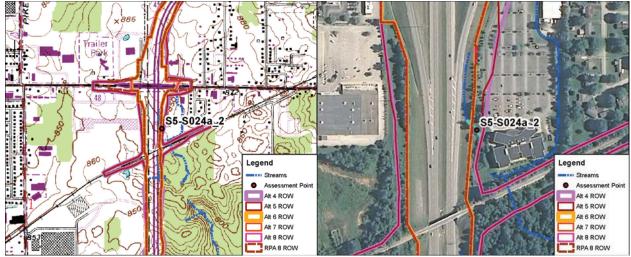


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S024a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.16278 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57274) (Concrete Gutter-Modified Cl	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	ı HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 6 Check 100% SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6	""
	De al Dan
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	187: -141-
	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.37 This information must also be completed	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.37	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): L R (NOST PREDOMETER AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5-10m Moderate 5-10m Moderate 5-10m Virban or Industrial	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.37 L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Onen Pasture Pow C	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream Mature Forest, Wetland Wide >10m Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.37 L R (NOST PLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Open Pasture, Row C	5 STOP
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.37 L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Onen Pasture Pow C	5 STOP
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Wide >10m Moderate 5-10m Narrow <5m None AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): L R (Nost Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Residential, Park, New Field Open Pasture, Row C	5 STOP
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10w AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.47 AVERAGE BANKFULL WIDTH (meter	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10w AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.47 AVERAGE BANKFULL WIDTH (meter	5
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH **L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH (meters): 0.37 RIPARIAN WIDTH (meters): 0.37 RIPARIAN WIDTH (meters):	5
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	5
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Fenced Pasture COMMENTS AVERAGE BANKFULL WIDTH (meters): 0.37 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Eft (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Open Pasture, Row C V None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	5 5 top

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Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Clear CreekSection:6Quarter:NWTownship:T8N

Range: R1W **IDEM 303(d) List:** N/A **Watershed:** 05120208090 **OHWM Width:** 8.0 feet

Channelized/Type:Yes/Dump Rock GutterOHWM Depth:0.2 feetStream Type:EphemeralUSCOE Jurisdiction:NoEvaluation Type:HHEIIDEM Jurisdiction:No

Evaluation Score: 27 Watershed Area: 0.04 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1761583 ft **UTMN**: 14211938 ft

Stream S5-S024a_2 – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	123	0.02	0.00
5	123	0.02	0.00
6	35	0.01	0.00
7	35	0.01	0.00
8	35	0.01	0.00
RPA 8	42	0.01	0.00

Description of Potential Impact:

Impacts to S5-S024a_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel is a dump rock gutter that outlets to a wetland (W24). There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW on the left bank and new field on the right bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S024a_2 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



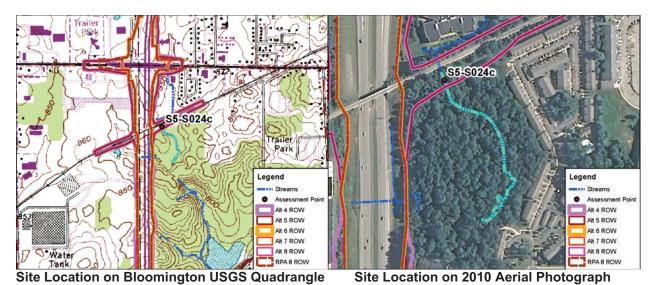
ChieFP Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S024a_2 RIVER BASIN White River DRAINAGE AREA (mi²) 0	.04
LENGTH OF STREAM REACH (ft) 122 LAT. 39.16213 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS/DEW COMMENTS (Long: -86.57252) (Dump Rock Gutter-Modified C	Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 BURSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Action predomi	HHEI Metric Points Substrate Max = 40 7
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW 8'/0.2' AVERAGE BANKFULL WIDTH (meters): 2.44	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣ NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction	op
COMMENTS	-
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

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Reset Form



Aquatic Resource: Stream USGS Quadrangle: Bloomington

T8N

Stream Name: Unnamed Trib. Clear Creek Section:
Quarter: NW Township:

Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120208090 9.0 feet Channelized/Type: Yes/Natural OHWM Depth: 1.0 feet Stream Type: Ephemeral **USCOE** Jurisdiction: Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 32 Watershed Area: 0.04 sq mi

Legal Drain (Y/N): N Predominant Sub: Clay

UTME: 1761778 ft **UTMN**: 14211548 ft

Stream S5-S024c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	76	0.02	0.37
5	76	0.02	0.37
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S024c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate of S5-S024c is predominately clay. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of immature forest where alternatives 4 and 5 cross the stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S024c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

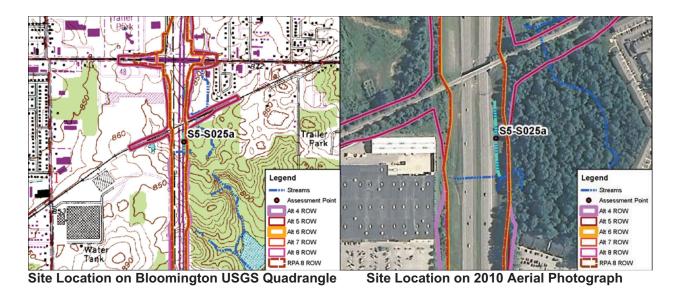
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S024c RIVER BASIN White River DRAINAGE AREA (mi²)	.04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.16105 LONG. RIVER CODE RIVER MILE	
DATE 10/11/11 SCORER DEW/KSS COMMENTS (Long: -86.57184) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC MODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	иие
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts] 11% MUCK [0 pts] 0%	12
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 9'/1' AVERAGE BANKFULL WIDTH (meters): 2.74	20
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Field ——	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	pp
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 7 1.0 2.0 3.0 3.0 5.5 1.5 2.5 2.5	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S024c
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Clear Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map I	Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Perry	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_	Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 50%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
incised channel, steep unstable banks	
Additional comments/description of pollution impacts:	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections options)	·
ID number. Include appropriate field data sheets from the Pr	rimary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM I	REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation a	· —
morado important iandmarko and outer realures of interest for site evaluation at	na a nanauve description of the stream's location

FLOW -

See Stream Assessment Form S5-S024c for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS C Stream Name: Unnamed Trib. Clear Creek Section

Quarter: NW Range: R1W

Watershed: 05120208090
Channelized/Type: Yes/Roadside Ditch
Stream Type: Ephemeral

Evaluation Type: HHEI
Evaluation Score: 23
Legal Drain (Y/N): N

UTME: 1761512 ft **UTMN**: 14221120 ft

USGS Quadrangle: Bloomington

Section: 6
Township: T8N
IDEM 303(d) List: N/A
OHWM Width: 2.7 feet
OHWM Depth: 0.4 feet
USCOE Jurisdiction: No
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq mi

Watershed Area: 0.01 sq mi Predominant Sub: Gravel/sand

Stream S5-S025a – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	395	0.02	0.09
5	395	0.02	0.11
6	395	0.02	0.00
7	395	0.02	0.00
8	395	0.02	0.00
RPA 8	395	0.02	0.00

Description of Potential Impact:

Impacts to S5-S025a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. No connection to a TNW was found; thus this resource shall be considered isolated. The gravel bottom roadside ditch is located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S025a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

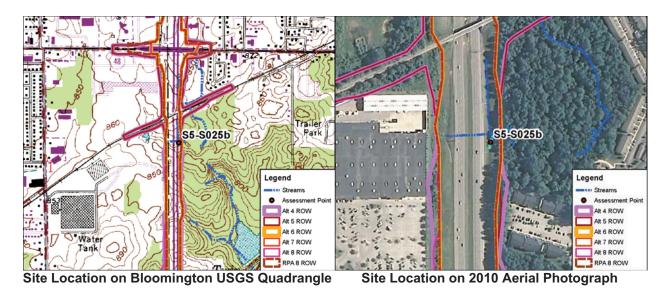


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S025a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ff) 200 LAT. 39.15988 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long:-86.57278) Isolated (Roadside Ditch-Mod	d Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 80% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	18
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
 > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] ✓ NO WATER OR MOIST CHANNEL [0 pts] 	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
	<u> </u>
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### DODPLAIN QUALITY L R (Most Predominant per Bank) L R ### (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Fenced Pasture Mining or Construction COMMENTS	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Mature Forest, Shrub or Old Field Narrow <5 m Narrow <5 m Narrow <5 m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermitte Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m · 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m · 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' This information must also be completed RIPARIAN WIDTH ENDOPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream % RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Nature Forest, Wetland Nature Forest, Shrub or Old Natrow <5m None Fenced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts] COMMENTS OHW = 2.7'/0.4' This information must also be completed RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream % (Most Predominant per Bank) RIPARIAN WIDTH FLOODPLAIN QUALITY Moderate 5-10m Mature Forest, Wetland Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Comple	s5-5025a eted):
QHEI PERFORMED? - Yes V No QHEI Score (If Ye	es, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Clear Creek (>2 miles) CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATE	RSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil	Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City:	Perry
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/19/12 Photograph Information:	. Quantity: 0.20
Elevated Turbidity? (Y/N): N Canopy (% open): 100%	
N	or id. and attach results) Lab Number:
	S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please expla	ain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field data sheets from Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (Y/N)	
DRAWING AND NARRATIVE DESCRIPTION OF STRE	AM REACH (This must be completed):
Include important landmarks and other features of interest for site evalua	· —
See Stream Assessment Form S5-S025a for site topographic aerial photograph, and resour	_

Save as pdf





Aquatic Resource: Concrete Gutter

Stream Name: Unnamed Trib. Clear Creek Quarter: NW

Range: R1W Watershed: 05120208090 Channelized/Type: Yes/Drainage ditch

Stream Type: Ephemeral **Evaluation Type:** HHEI **Evaluation Score:** 12

Legal Drain (Y/N): Ν

UTMN: 14220879 ft **UTME:** 1761526 ft

USGS Quadrangle: Bloomington

Section: Township: T8N IDEM 303(d) List: N/A OHWM Width: 1.2 feet **OHWM Depth:** 0.1 feet **USCOE** Jurisdiction: No **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Predominant Sub: Silt

Stream S5-S025b – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	74	0.01	0.00
5	74	0.01	0.00
6	74	0.01	0.00
7	74	0.01	0.00
8	74	0.01	0.00
RPA 8	74	0.01	0.00

Description of Potential Impact:

Impacts to S5-S025b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. No connection to a TNW was found; thus this resource shall be considered isolated. The ditch is located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S025b are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



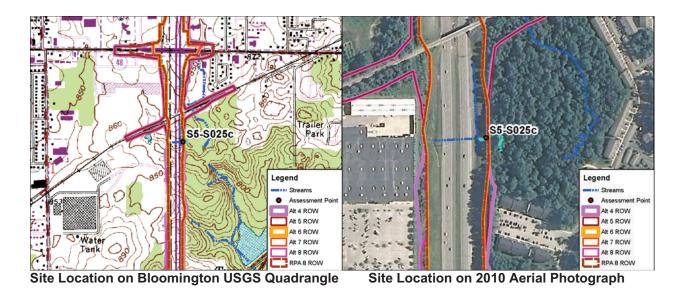
12

SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S025b DRAINAGE AREA (mi²) 0.01 SITE NUMBER 73 LAT. **39.15922** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE **04/23/12** COMMENTS (Long:-86.57274) Isolated (Drainage Ditch-Mod Class I) KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 0% 100% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 1 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) ■ Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) VWWH Name: Clear Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Perry
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/19/12 Quantity: 0.00 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 100% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N):N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location See Stream Assessment Form S5-S025b for site topographic map,
aerial photograph, and resource photographs

Save as pdf

Reset Form



Aquatic Resource: Stream USGS Quadrangle: Bloomington Stream Name: Unnamed Trib. Clear Creek Section: 6

 Quarter:
 NW
 Township:
 T8N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120208090
 OHWM Width:
 10.0

10.0 feet Channelized/Type: No/Natural **OHWM Depth:** 2.0 feet Stream Type: Ephemeral **USCOE Jurisdiction:** No **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 27 Watershed Area: 0.01 sq mi

Legal Drain (Y/N): N Predominant Sub: UTME: 1761569 ft UTMN: 14220925 ft

Stream S5-S025c – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	54	0.01	0.00	
5	56	0.01	0.00	
6	56	0.01	0.00	
7	56	0.01	0.00	
8	56	0.01	0.00	
RPA 8	56	0.01	0.00	

Silt/hardpan

Description of Potential Impact:

Impacts to S5-S025c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate is silt on hardpan. There is a wide riparian corridor on both banks where the Alternatives cross this isolated (sinking) stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream near where these Alternatives cross S5-S025c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

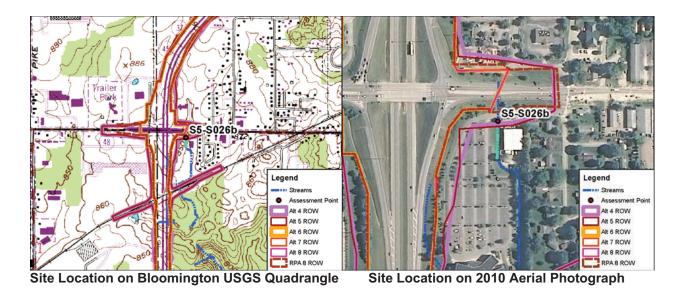


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S025c RIVER BASIN White River DRAINAGE AREA (mi²) 0.01	1
LENGTH OF STREAM REACH (ft) 200 LAT. 39.15935 LONG. RIVER CODE RIVER MILE	
DATE 05/08/06 SCORER A Rogers COMMENTS (Long: -86.57259) Isolated (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct	tions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER MODIFICATIONS:	ERY
	HHEI
BLDR SLABS [16 pts] O SILT [3 pt]	Metric Points
BOULDER (>256 mm) [16 pts]	Substrate
☐ COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts] 5% MUCK [0 pts] 0% ARTIFICIAL [3 pts] 0%	7
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
. ,	ool Depth
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
→ > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Max=30
COMMENTS OHW - 9.8' / 2' AVERAGE BANKFULL WIDTH (meters): 2.99	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
None Fenced Pasture Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Surface Conveyance only - Stream drops into sinkhole	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Surface Conveyance only - Stream drops into sinkhole SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Surface Conveyance only - Stream drops into sinkhole SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	

ADDITIONAL STRI	EAM INFORMATION (This Information M	/lust Als	o be Completed):		03-20	25C
QHEI PE	RFORMED? - Yes No QHEI Sc	ore	(If Yes, Attac	ch Completed QHEI Forr	n)	
DOWNS WWH Name: CWH Name:	TREAM DESIGNATED USE(S) Clear Creek			_ Distance from Evaluate		7
EWH Name:				Distance from Evaluate	_	
MAPPIN	G: ATTACH COPIES OF MAPS, INCLUDIN	G THE E	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION	
USGS Quadrangle	Name: Bloomington		NRCS Soil Map Pa	age: 32 NRCS Soil	Map Stream Order	1
County: Monroe		Towr	nship / City: Perry			
MISCELI	LANEOUS					
Base Flow Condition			05/04/06	Quantity: 0.01		
Photograph Informa	ation: 0001 Upstream / 0002 Downstrea	ım / 000	3 Right Bank / 0004	Left Bank		
Elevated Turbidity?	(Y/N): N Canopy (% open):	85	%			
Were samples colle	ected for water chemistry? (Y/N): _N	(Note la	ab sample no. or id. a	nd attach results) Lab Nu	umber:	
Field Measures:	Temp (°C) Dissolved Oxygen (m	ng/l)	pH (S.U.)	Conductivity (μm	hos/cm)	
Is the sampling rea	ch representative of the stream (Y/N)	If no	t, please explain:			_
Additional commen	ts/description of pollution impacts:					
Performed? (Y/N): Fish Observed? (Y/N)	ID number. Include appropriate	e field da	•	·		ıe sit€
Frogs or Tadpoles	Observed? (Y/N) Voucher? (Y/N)		atic Macroinvertebrate	_ ` '	Voucher? (Y/N)	
Comments Regard	ing Biology:					_
DRA	WING AND NARRATIVE DESCR	IDTION	I OE STREAM D	EACH /This must k	o completed):	
	ortant landmarks and other features of in			-	-	n
	-					
_	See Stream Assessmer					
FLOW -	S5-S025c for site to			_		
	aerial photograph, a	and 1	resource ph	otographs		

Save as pdf

Reset Form



T8N

N/A

Yes

6.0 feet

1.5 feet

Aquatic Resource: Stream USGS Quadrangle: Bloomington Stream Name: Unnamed Trib. Clear Creek Section: 6

Quarter: NW Township: Range: R1W IDEM 303(c

Range: R1W IDEM 303(d) List:
Watershed: 05120208090 OHWM Width:
Channelized/Type: Yes/Roadside Ditch OHWM Depth:
Stream Type: Ephemeral USCOE Jurisdiction:

Evaluation Type:HHEIIDEM Jurisdiction:YesEvaluation Score:52Watershed Area:0.33 sq miLegal Drain (Y/N):NPredominant Sub:Sand/gravel

UTME: 1761896 ft **UTMN**: 14222669 ft

Stream S5-S026b – Modified Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	17	0.01	0.00
5	30	0.01	0.00
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S026b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel's substrate consists of sand and gravel. This captured stream channel is located along a driveway of a commercial facility. There is no riparian buffer associated with this ditch. The floodplain consists of the urban uses along both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S026b are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

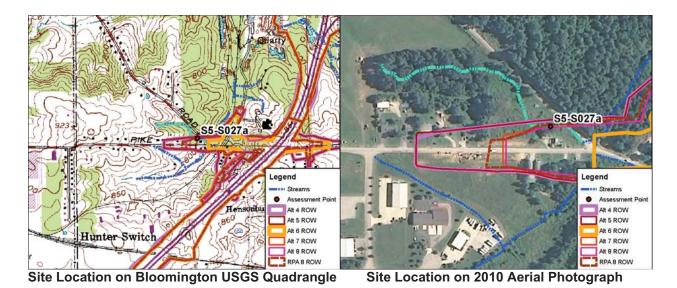


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S026b RIVER BASIN White River DRAINAGE AREA (mi²)	0.33
LENGTH OF STREAM REACH (ft) 200 LAT. 39.16413 LONG. RIVER CODE RIVER MILE	
DATE 10/11/11 SCORER DEW/KSS COMMENTS (Long: -86.57140) (Roadside Ditch-Modified Class	ss II)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 49% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	17
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	15
	13
COMMENTS MAXIMUM POOL DEPTH (centimeters): 8	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW = 6'/1.5' AVERAGE BANKFULL WIDTH (meters): 1.83	
	□ 20
	20
This information must also be completed	20
	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{RIPARIAN WIDTH} \frac{1}{2}\text{FLOODPLAIN QUALITY} \frac{1}{2}\text{L R (Most Predominant per Bank)} \frac{1}{2}\text{R}	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Field	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\times \text{NOTE}\$: River Left (L) and Right (R) as looking downstream \$\times\$ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Criefly Conservation Tillage	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Field	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cri None Fenced Pasture Mining or Construction COMMENTS	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old I/I/I Urban or Industrial Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cr V None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Open Pasture Mining or Construction per Bank) None Fenced Pasture COMMENTS	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Narrow < 5m Residential, Park, New Field Open Pasture, Row Cr. Vone COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Woderate 5-10m Residential, Park, New Field Open Pasture, Row Cn Narrow <5m Residential, Park, New Field Open Pasture, Row Cn Fenced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Sinuosity (Number of bends per 61 m (200 ft) of channel, isolated pools: This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Narrow Left (L) and Right (R) as looking downstream Na	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cn Plow Regime (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	op

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S026b
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) / WWH Name: Clear Creek Distance from Evaluated Streek EWH Name: Distance from Evaluated Streek Distance from Evaluated Streek	eam _
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE	SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map Page: NRCS Soil Map S	Stream Order
County: Monroe Township / City: Perry	
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: Quantity: Quantity: Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 100% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cn	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	,
Roadway runoff	
Additional comments/description of pollution impacts:	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples mu ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessments Prish Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be conformed important landmarks and other features of interest for site evaluation and a narrative description of the stream Assessment Form S5-S026b for site topographic map, aerial photograph, and resource photographs	

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Reset Form



Aquatic Resource: Stream **USGS** Quadrangle: Bloomington

Stream Name: Unnamed Trib. Stout Creek Section: Quarter: NW Township:

T8N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 2.6 feet Channelized/Type: No/Natural **OHWM Depth:** 1.0 feet Stream Type: Ephemeral **USCOE** Jurisdiction: Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 30 Watershed Area: 0.05 sq mi **Predominant Sub:** Gravel/sand Legal Drain (Y/N): Ν

UTME: 1761896 ft **UTMN:** 14222669 ft

Stream S5-S027a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	333	0.02	0.26	
5	333	0.02	0.26	
6	0	0.00	0.00	
7	125	0.01	0.11	
8	116	0.01	0.08	
RPA 8	236	0.01	0.09	

Description of Potential Impact:

Impacts to S5-S027a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel, sand and silt. There is a moderately wide riparian corridor on both banks of the stream where it meanders through a residential property. The floodplain consists of an old field and residential use. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S027a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



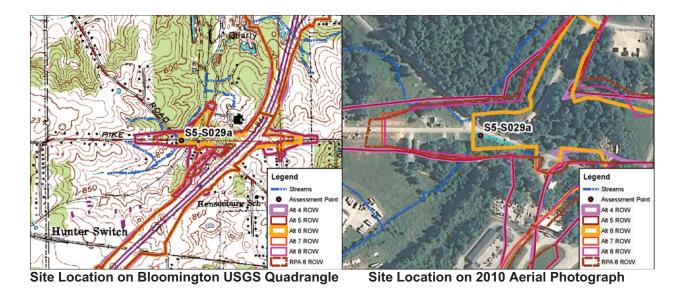
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S027a RIVER BASIN White River DRAINAGE AREA (mi²)	0.05
LENGTH OF STREAM REACH (ft) 200 LAT. 39.17951 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56470) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts] 25% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 10.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] < 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.6' / 1.0' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.6' / 1.0' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.6' / 1.0' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
S S N S S S S S S S	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3 5 nt 5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 4 5 nt 5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] 5 nt 5	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.6' / 1.0' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 5
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3 5 nt 5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 4 5 nt 5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] 5 nt 5	Width Max=30 5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Wide >10m Moderate 5-10m None COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.00 AVERAGE BANKFULL WIDTH (meters): 1.00 AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) L R (Most Predominant per Bank) I D Moderate 5-10m Residential, Park, New Field None COMMENTS	Width Max=30 5
Source S	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH	Width Max=30
Salo m - 4.0 m (2 9' 7" - 13') [25 pts] Salo m (3 9' 7" - 13') [25 pts] Salo m (3 9' 7" - 4' 8") [20 pts] Salo m (5 9' 7" - 4' 8")	Width Max=30
Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
Salo m - 4.0 m (29' 7" - 13') [25 pts] I set I s	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Me	ust Also be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Sco	re(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Stout Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
LIEWH Name: _	Distance from Evaluated Stream
	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington	NRCS Soil Map Page: 27 NRCS Soil Map Stream Order
County: Monroe	Township / City:Bloomington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):N Date of last precipitati	on: 05/12/06 Quantity: 0.39
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open):	30%
Were samples collected for water chemistry? (Y/N):((Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mo	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:
Additional comments/description of pollution impacts:	
Diotio Tivi II Toli	
· / =	Voucher collections optional. NOTE: all voucher samples must be labeled with the site field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salama Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N)	Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
	PTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of int	erest for site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S027a for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream

Stream Name: Unnamed Trib. Stout Creek

Quarter: SE Range: R1W

Watershed: 05120202010 Channelized/Type: Yes/Roadside Ditch **Stream Type:** Ephemeral

Evaluation Type: HHEI **Evaluation Score:** 29 Legal Drain (Y/N): Ν

UTME: 1764034 ft **UTMN:** 14228124 ft **USGS** Quadrangle: Bloomington

Section: 30 Township: T8N IDEM 303(d) List: N/A OHWM Width: 2.8 feet **OHWM Depth:** 1.0 feet **USCOE Jurisdiction:** No **IDEM Jurisdiction:** No

0.08 sq mi Watershed Area: **Predominant Sub:** Gravel/sand

-				
Stream S5-S029a – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	258	0.02	0.03	
5	258	0.02	0.03	
6	242	0.02	0.03	
7	258	0.02	0.03	
8	258	0.02	0.03	
RPA 8	258	0.02	0.03	

Description of Potential Impact:

Impacts to S5-S029a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This segment of stream is captured by a ditch that flows along West Vernal Pike. The substrate consists primarily of gravel, sand, and boulder slabs. There is no riparian buffer associated with this captured channel. The floodplain consists of the roadway on the right bank and an old field on the left. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S029a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



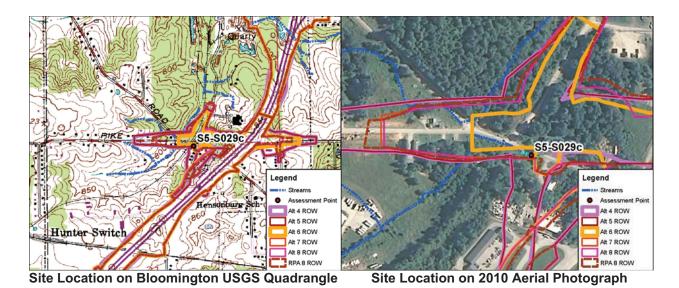
SITE NAME/LOCATION I-69 Section 5					
	-S029a RIVER B	ASIN White River	DRAINAG	E AREA (mi²) 0.	.08
()	_AT. 39.17909 LC	NGRIVE	R CODE	RIVER MILE	
DATE 05/12/06 SCORER A Rogers	COMMENTS (Long: -86.56377) (R	oadside Ditch-l	Modified Clas	s I)
NOTE: Complete All Items On This Form	- Refer to "Field Ev	aluation Manual for C	hio's PHWH Stre	ams" for Instru	uctions
STREAM CHANNEL NONE / NATU MODIFICATIONS:	JRAL CHANNEL	RECOVERED RECO	OVERING RECE	ENT OR NO REC	OVERY
SUBSTRATE (Estimate percent of every					
(Max of 32). Add total number of significal TYPE	nt substrate types found RCENT TYPE	d (Max of 8). Final metric s		s A & B. ERCENT	HHEI Metri
BLDR SLABS [16 pts]	0%	SILT [3 pt]		25%	Point
	0%	LEAF PACK/WOODY		0%	Substrat
	10%	FINE DETRITUS [3 pt CLAY or HARDPAN [0		0%	Max = 4
	35%	MUCK [0 pts]		0%	19
SAND (<2 mm) [6 pts]	30%	ARTIFICIAL [3 pts]		0%	19
Total of Percentages of 10	0.00% ^(A)	Substrate Percentage Check 100	0%	(B)	A + B
Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBST	RATE TYPES: 15	TOTAL NUMBER	OF SUBSTRATE T	YPES: 4	
2. Maximum Pool Depth (Measure the ma	ximum pool depth wit	hin the 61 meter (200 ft)	evaluation reach at	the time of	Pool Dep
evaluation. Avoid plunge pools from road > 30 centimeters [20 pts]	culverts or storm water	pipes) (Check <i>ONLY</i> o > 5 cm - 10 cm [15 pt	,		Max = 3
> 22.5 - 30 cm [30 pts]	✓	< 5 cm [5 pts]	5]		
> 10 - 22.5 cm [25 pts]		NO WATER OR MOI	ST CHANNEL [0 pts		5
COMMENTS		MAXIMUM PO	OL DEPTH (centime	eters): 3	
3. BANK FULL WIDTH (Measured as the a	verage of 3-4 measur	ements) (Check	ONLY one box):		Bankful
> 4.0 meters (> 13') [30 pts]	7	> 1.0 m - 1.5 m (> 3' 3			Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Ľ.	≤ 1.0 m (<=3' 3") [5 pt	sj		Wax-30
COMMENTS OHW - 2.8' / 1.0'		AVERAGE BA	NKFULL WIDTH (m	eters): 0.90	5
			0 (
		on <u>must</u> also be comple			
RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH	. AIN QUALITY ☆N FLOODPLAIN QUAL	IOTE: River Left (L) and F ITY	Right (R) as looking o	lownstream ☆	
L R (Per Bank)	L R (Most Pred	ominant per Bank)	LR		
Wide >10m		est, Wetland forest, Shrub or Old		rvation Tillage	
Moderate 5-10m	Field	crost, chiab or old		or Industrial	
Narrow <5m	Residential	, Park, New Field	Open Open	Pasture, Row Cro	pp
None	Fenced Pas	sture	Mining	or Construction	
COMMENTS.					-
FLOW REGIME (At Time of Evalu	uation) (Check ONLY of		l isolated paols no	flow (Intornaittont)	
Stream Flowing Subsurface flow with isolated pools	(Interstitial)		I, isolated pools, no no water (Ephemera	,	
COMMENTS_					
SINUOSITY (Number of bends pe	r 61 m (200 ft) of chanr	iel) (Check ONLY one bo			
None 0.5	1.0 1.5	2.0 2.5	3.0		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to	Severe	Severe (10 ft/10	00 ft)
<u> </u>		. <u>—</u>			,

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Stout Creek Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map Page: 27 NRCS Soil Map Stream Order
County: Monroe Township / City: Bloomington
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/12/06 Quantity: 0.39
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 90%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the single properties of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Vouc
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S029a for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Stout Creek Section: 31

Quarter: NE Township: T9N Range: R1W IDEM 303(d) List: N/A

Watershed: 05120202010 OHWM Width: 2.8 feet Channelized/Type: Yes/Roadside Ditch OHWM Depth: 1.0 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type: IDEM Jurisdiction:** HHEI No

Evaluation Score: 29 Watershed Area: 0.08 sq mi
Legal Drain (Y/N): N Predominant Sub: Gravel/sand

UTME: 1764304 ft **UTMN**: 14228027 ft

Stream S5-S029c – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	107	0.01	0.00	
5	107	0.01	0.00	
6	33	0.01	0.00	
7	107	0.01	0.00	
8	107	0.01	0.00	
RPA 8	99	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S029c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This segment of stream is captured by a ditch that flows along West Vernal Pike. The substrate consists primarily of gravel, sand, and silt. There is no riparian buffer associated with this channel. The floodplain consists of the roadway on the right bank and an old field on the left. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S029c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

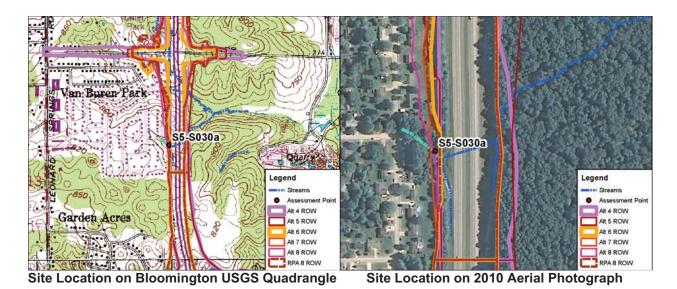


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S029c RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.08
LENGTH OF STREAM REACH (ft) 105 LAT. 39.17882 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56282) (Roadside Ditch-Modified Clas	s I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metric Points
BLDR SLABS [16 pts]	Politic
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	WIAX - 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts]	19
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 10.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	INIAX - 3
> 22.5 - 30 cm [30 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 2.8' / 1.0' AVERAGE BANKFULL WIDTH (meters): 0.90	5
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Open Pacture Pow Cro	р
Narrow <5m Residential, Park, New Field Mining or Construction	
COMMENTS Periced Fasture Milling of Construction	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	
0.5 1.5 2.5 >3	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREA	AM INFORMATION (This Information M	ust Also be Completed):		55-5029C
QHEI PER	FORMED? - Yes V No QHEI Sco	ore (If Yes, Atta	ach Completed QHEI Form)	
DOWNSTF WWH Name: Sto CWH Name: EWH Name:	REAM DESIGNATED USE(S) Dut Creek		Distance from Evaluated S Distance from Evaluated S Distance from Evaluated S	Stream _
MAPPING	ATTACH COPIES OF MAPS, INCLUDING	THE ENTIRE WATERSHEE	DAREA. CLEARLY MARK T	HE SITE LOCATION
USGS Quadrangle N	ame: Bloomington	NRCS Soil Map F	Page: 27 NRCS Soil M	lap Stream Order
County: Monroe		Township / City: Bloom	nington	
MISCELLA Base Flow Conditions Photograph Informati Elevated Turbidity? (Were samples collect	on:N Date of last precipitat Y/N):N Canopy (% open):	90%	Quantity: 0.39 and attach results) Lab Num	ber:
Field Measures: T	Dissolved Oxygen (monotonia) The representative of the stream (Y/N) Y /description of pollution impacts:	If not, please explain:		
BIOTIC E	VALUATION N (If Yes, Record all observations. ID number. Include appropriate Voucher? (Y/N) Salama bserved? (Y/N) Voucher? (Y/N)	Voucher collections optiona	II. NOTE: all voucher samples imary Headwater Habitat Asse Voucher? (Y/N)	s must be labeled with the site
DRAW	ING AND NARRATIVE DESCRI		• —	
FLOW -	See Stream Assessme S5-S029c for site t aerial photograph,	nt Form opographic mar	ο,	i uie suediii s location

Save as pdf

Reset Form



Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Clear CreekSection:13Quarter:NETownship:T8NRange:R2WIDEM 303(d) List:N/A

Watershed: 05120208090 OHWM Width: 3.0 feet Channelized/Type: No/Natural **OHWM Depth:** 0.5 feet Stream Type: Ephemeral **USCOE** Jurisdiction: Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 16 Watershed Area: 0.03 sq mi
Legal Drain (Y/N): N Predominant Sub: Sand

UTME: 1761335 ft **UTMN**: 14210797 ft

Stream S5-S030a – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	19	0.01	0.10	
5	16	0.01	0.09	
6	13	0.01	0.08	
7	81	0.01	0.13	
8	64	0.01	0.13	
RPA 8	16	0.01	0.09	

Description of Potential Impact:

Impacts to S5-S030a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of sand. There is no riparian buffer associated with this stream. The floodplain consists of a maintained utility line ROW. Photographs taken downstream in the area where these Alternatives cross S5-S030a are on the second page of this form.



Photograph Taken Downstream



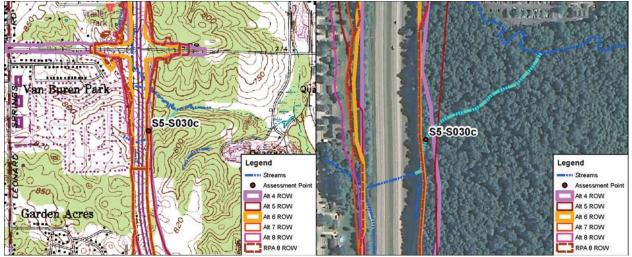
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S030a RIVER BASIN White River DRAINAGE AREA (mi²)	.03
LENGTH OF STREAM REACH (ft) 200 LAT. 39.13153 LONG. RIVER CODE RIVER MILE	
DATE 10/11/11 SCORER DEW/KSS COMMENTS (Long: -86.57358) (Natural-Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL □ NONE / NATURAL CHANNEL □ RECOVERED □ RECOVERING □ RECENT OR NO RECOVERED □ RECENT OR NO RECOVERED □ RECOVERED □ RECENT OR NO RECOVERED □ RECENT OR NO RECOVERED □ RECOVERED □ RECENT OR NO RECOVERED □ RECOVERED □ RECENT OR NO REC	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metric Points
BLDR SLABS [16 pts]	Politi
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	Max - 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] 95% MUCK [0 pts] 0% ARTIFICIAL [3 pts] 0%	11
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): 0.90	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Field Urban or industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	ър
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no, water (Ephemeral)	
	-
Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	-
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	-
Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	-

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S030a
QHEI PERFORMED? - Yes Mo QHEI Score (If Yes, Atta	ch Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Clear Creek	Distance from Evaluated Stream
CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHEE	
Plaamington	
County: Monroe Township / City: Van Br	uren
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation:	Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 100%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. a	and attach results) Lab Number:
	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Roadway runoff	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional	I. NOTE: all voucher samples must be labeled with the sit
ID number. Include appropriate field data sheets from the Pri	•
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) N	Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) Aquatic Macroinvertebrai	
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM F	REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation ar	d a narrative description of the stream's location
See Stream Assessment Form	

FLOW -

S5-S030a for site topographic map, aerial photograph, and resource photographs





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Clear Creek

Quarter: NW Range: R1W

Watershed: 05120208090
Channelized/Type: No/Natural
Stream Type: Ephemeral
HHEI
Evaluation Type: 498

Evaluation Score: 38 Legal Drain (Y/N): N

UTME: 1761687 ft **UTMN**: 14211013 ft

USGS Quadrangle: Bloomington

Section: 18 Township: T8N IDEM 303(d) List: N/A OHWM Width: 8.2 feet **OHWM Depth:** 0.9 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.03 sq mi

Watershed Area: 0.03 sq mi Predominant Sub: Sand/gravel

Stream S5-S030c -Class I PHWH				
Oli Gaill 05-50500 -Class I FIIWII				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	265	0.05	0.75	
5	303	0.06	0.88	
6	100	0.02	0.14	
7	100	0.02	0.14	
8	100	0.02	0.14	
RPA 8	100	0.02	0.14	

Description of Potential Impact:

Impacts to S5-S030c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of sand and gravel. There is a narrow riparian corridor consisting of INDOT ROW on the left bank and a wide riparian buffer consisting of immature forest on the right bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S030c are on the second page of this form.



Photograph Taken Upstream



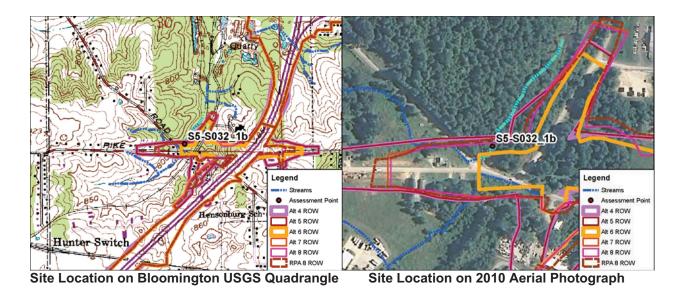
Photograph Taken Downstream



38

SITE NAME/LOCATION I-69 Section 5				
SITE NUMBER S5-S030c RIVER BASIN White River DRAINAGE AREA (mi²)	.03			
LENGTH OF STREAM REACH (ft) 200 LAT. 39.13212 LONG. RIVER CODE RIVER MILE				
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.57233) (Natural-Class I)				
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions				
STREAM CHANNEL NONE / NATURAL CHANNEL PRECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS:				
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of SAND (A) Substrate Percentage (A) Substrate Percentage (B)	HHEI Metric Points Substrate Max = 40			
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	A + B			
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	Pool Depth Max = 30			
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0				
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]				
COMMENTS OHW = 8.2'/0.9' AVERAGE BANKFULL WIDTH (meters): 2.50	20			
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY				
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)				
	-			
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): None 0.5 1.0 2.0 3.0 >3 >3	-			

ADDITIONAL STRE	EAM INFORMATION (This Information M	/lust Also be (Completed):		S5-S03	30c
	RFORMED? - Yes V No QHEI Sc			ach Completed QHEI For	m)	
	REAM DESIGNATED USE(S)		_ ` '	•	,	
	lear Creek (>2 miles)			Distance from Evalua	ted Stream	1
CWH Name:				Distance from Evaluat		
EWH Name:				Distance from Evaluat	ed Stream	
MAPPING	S: ATTACH COPIES OF MAPS, INCLUDIN	G THE ENTIRE	WATERSHE	DAREA. CLEARLY MAR	K THE SITE LOCATION	
USGS Quadrangle I	Name: Bloomington	NR	CS Soil Map I	Page: NRCS So	il Map Stream Order	
County: Monroe		Township /	City: Perry			
MISCELL	ANEOUS					
Base Flow Condition	ns? (Y/N):Y Date of last precipita	tion: 04 /	19/12	Quantity: 0.20		
Photograph Informa	tion:					
Elevated Turbidity?	(Y/N): N Canopy (% open):	10%				
Were samples colle	cted for water chemistry? (Y/N): N	(Note lab sam	ple no. or id.	and attach results) Lab N	lumber:	
	Temp (°C) Dissolved Oxygen (n			Conductivity (µr		
Is the sampling read	ch representative of the stream (Y/N)	If not, pleas	se explain:			_
Additional comment	s/description of pollution impacts:					
BIOTIC E	EVALUATION					
Performed? (Y/N): _	(If Yes, Record all observations	s. Voucher colle	ections optiona	al. NOTE: all voucher sam	ples must be labeled with the	e site
	ID number. Include appropriate			rimary Headwater Habitat A	ssessment Manual)	
Fish Observed? (Y/I	N) N Voucher? (Y/N) N Salam	anders Observ	/ed? (Y/N)	Voucher? (Y/N) N	N	
Frogs or Tadpoles C	observed? (Y/N) N voucher? (Y/N) N	Aquatic Ma	acroinvertebra	ites Observed? (Y/N)	Voucher? (Y/N)	
Comments Regarding	ng Biology:					_
						_
DRAV	VING AND NARRATIVE DESCR	IPTION OF	STREAM	REACH (This <u>must</u>	be completed):	_
Include impo	rtant landmarks and other features of ir	terest for site	evaluation a	nd a narrative descriptio	n of the stream's location	
	See Stream Assessmen	nt Form				
FLOW -			nia man			
FLOW -	S5-S030c for site to		_			
	aerial photograph, a	ana resc	ource p.	notographs		



Aquatic Resource: Stream US
Stream Name: Unnamed Trib. Stout Creek Sec

Quarter: SE Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI
Evaluation Score: 55

Legal Drain (Y/N): N **UTMN:** 14228275 ft

USGS Quadrangle: Bloomington

Section: 30 Township: T9N IDEM 303(d) List: N/A OHWM Width: 2.8 feet OHWM Depth: 1.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes 0.41 sq mi Watershed Area:

Watershed Area: 0.41 sq mi
Predominant Sub: Boulder slabs

Stream S5-S032_1b -Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	146	0.01	0.91	
5	146	0.01	0.91	
6	49	0.01	0.14	
7	113	0.01	0.47	
8	111	0.01	0.50	
RPA 8	133	0.01	0.55	

Description of Potential Impact:

Impacts to S5-S032_1b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of cobble overlaying boulder slabs. There is wide immature forested buffer associated with both stream banks where the Alternatives cross this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S032_1b are on the second page of this form.



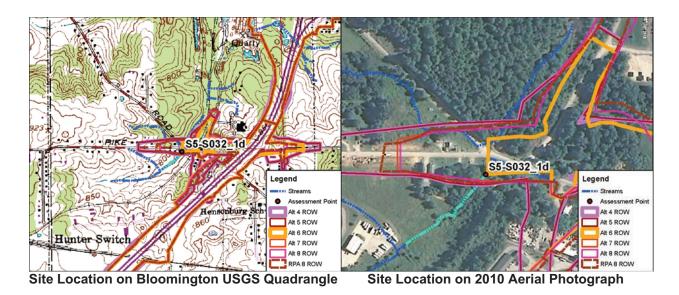
Photograph Taken Upstream





55

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S032_1b RIVER BASIN White River DRAINAGE AREA (mi²)	0.41
LENGTH OF STREAM REACH (ft) 200 LAT. 39.17950 LONG. RIVER CODE RIVER MILE	
DATE 10/12/11 SCORER DEW/KSS COMMENTS (Long: -86.56365) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊥ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 80% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 20% CLAY or HARDPAN [0 pt] 0%	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	30
Total of Percentages of 100 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 28 TOTAL NUMBER OF SUBSTRATE TYPES: 2	^.b
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	20
COMMENTS MAXIMUM POOL DEPTH (centimeters): 40	
2 PANK FILL WIDTH (Measured as the average of 2.4 measurements) (Check ON V and hex):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10 m Mature Forest, Wetland Moderate 5-10m Noderate 5-10m Noderate Solution Nodera	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m P 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] X NOTE: River Left (L) and Right (R) as looking downstream	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10 m Mature Forest, Wetland Moderate 5-10m Noderate 5-10m Noderate Solution Nodera	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitte	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): Under 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WI	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream Mature Forest, Wetland RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Mature Forest, Wetland Moderate 5-10m Narrow < 5m Narrow < 5m Residential, Park, New Field Open Pasture, Row Completed Riparian X (Most Predominant per Bank) Residential, Park, New Field Open Pasture, Row Completed Riparian X (Most Predominant per Bank) Residential, Park, New Field Open Pasture, Row Completed Riparian X (Most Predominant per Bank) Residential, Park, New Field Open Pasture, Row Completed Narrow < 5m Residential, Park, New Field Open Pasture, Row Completed Flow Regime (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermitte Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): None	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.8'/1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): None	Width Max=30



Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib. Stout Creek Section: 31

Quarter: NE Township: T9N Range: R1W IDEM 303(d) List: N/A

Watershed: 05120202010 OHWM Width: 2.8 feet Channelized/Type: No/Natural OHWM Depth: 1.2 feet **USCOE Jurisdiction: Stream Type:** Intermittent Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 48 Watershed Area: 0.41 sq mi
Legal Drain (Y/N): N Predominant Sub: Bedrock/silt

UTME: 1763982 ft **UTMN**: 14228048 ft

Stream S5-S032_1d –Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	143	0.01	0.00	
5	142	0.01	0.00	
6	43	0.01	0.00	
7	115	0.01	0.00	
8	122	0.01	0.00	
RPA 8	133	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S032_1d for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of silt overlaying bedrock. There is no riparian buffer associated with the left bank and a narrow buffer on the right bank consisting of an old field. The floodplain along the left bank is a residential yard. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S032_1d are on the second page of this form.



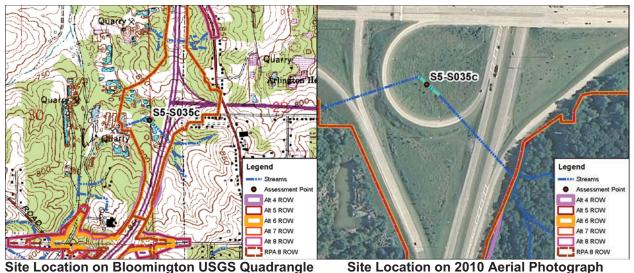
Photograph Taken Upstream



Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S032_1d RIVER BASIN White River DRAINAGE AREA (mi²)	0.41
LENGTH OF STREAM REACH (ft) 200 LAT. 39.17888 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.56395) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] Solution Sol	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ SAND (<2 mm) [6 pts] ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	23
Substate Perceptors (2)	
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 19 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts]	20
	20
COMMENTS MAXIMUM POOL DEPTH (centimeters): 40	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' AVERAGE BANKFULL WIDTH (meters): 0.85	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY PLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ###	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### DATE: River Left (L) and Right (R) as looking downstream: ### RIPARIAN WIDTH L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Flow Residential, Park, New Field Flow Residential, Park, New Field Flow Residential, isolated pools, no flow (Intermittent) FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10 m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' AVERAGE BANKFULL WIDTH (meters): OHW - 2.8' / 1.2' AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.85 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.8' / 1.2' AVERAGE BANKFULL WIDTH (meters): OHW - 2.8' / 1.2' AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY AVERAGE BANKFULL WIDTH (meters): OUNTY	Width Max=30



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Bloomington

Stream Name: Unnamed Trib. Stout Creek Section: 30 Quarter: SE Township: T9N

Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 5.0 feet Channelized/Type: Yes/Roadside Ditch OHWM Depth: 1.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes

Evaluation Type: HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 46 Watershed Area: 0.12 sq mi Legal Drain (Y/N): Ν **Predominant Sub:** Sand/silt

UTME: 1766011 ft **UTMN:** 14230690 ft

Stream S5-S035c – Modified Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	152	0.02	0.00	
5	152	0.02	0.00	
6	152	0.02	0.00	
7	152	0.02	0.00	
8	152	0.02	0.00	
RPA 8	152	0.02	0.00	

Description of Potential Impact:

Impacts to S5-S035c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a mostly sandy-bottomed drainage ditch located within existing INDOT ROW. There is no riparian buffer associated with this man-made channel. The floodplain consists of INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S035c are on the second page of this form.



Photograph Taken Upstream



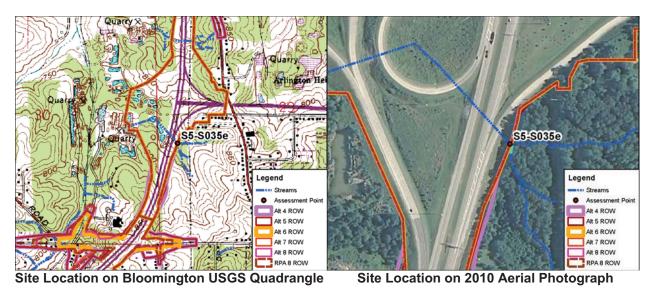
Photograph Taken Downstream



46

SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S035c DRAINAGE AREA (mi²) 0.01 SITE NUMBER 152 LAT. 39.18611 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.55675) (Roadside Ditch-Modified Class II) DATE 10/11/12 DEW/KSS SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 49% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 11 51% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **TOTAL NUMBER OF SUBSTRATE TYPES:** Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 15 10 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 5'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.52 20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Comp	oleted):
QHEI PERFORMED? - Yes V No QHEI Score (If	Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Stout Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WAT	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS So	oil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City:_	Bloomington
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 09/29/1	1 Quantity: 0.02
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 100%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample note)	o. or id. and attach results) Lab Number:
	(S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please exp	plain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field data sheets fro Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (vertebrates Observed? (Y/N) N Voucher? (Y/N)
Include important landmarks and other features of interest for site evaluation	aation and a narrative description of the stream's location
See Stream Assessment Form	
See Stream Assessment Form S5-S035c for site topographic	c map,
aerial photograph, and resour	_



Aquatic Resource: Stream USGS Quadrangle: Bloomington

29

T9N

Artificial

Stream Name: Unnamed Trib. Stout Creek Section:
Quarter: SW Township:

Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 8.0 feet Channelized/Type: Yes/Dump Rock Gutter OHWM Depth: 0.2 feet

Stream Type:EphemeralUSCOE Jurisdiction:YesEvaluation Type:HHEIIDEM Jurisdiction:YesEvaluation Score:27Watershed Area:0.06 sq mi

Legal Drain (Y/N): N Predominant Sub: UTME: 1766464 ft UTMN: 14230209 ft

Stream S5-S035e – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	6	0.01	0.00	
5	8	0.01	0.00	
6	8	0.01	0.00	
7	8	0.01	0.00	
8	8	0.01	0.00	
RPA 8	8	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S035e for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter located within existing INDOT ROW. There is a wide riparian buffer along the right bank and no riparian buffer associated with this artificial channel's left bank. The floodplain consists of INDOT ROW on the left bank and immature forest on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S035e are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S035e RIVER BASIN White River DRAINAGE AREA (mi²) 0	.06
LENGTH OF STREAM REACH (ft) 55 LAT. 39.18478 LONG. RIVER CODE RIVER MILE	
DATE 10/11/12 SCORER DEW/KSS COMMENTS (Long: -86.55516) (Dump Rock Gutter-Modified C	Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metric Points
BLDR SLABS [16 pts]	Foliti
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	
☐ GRAVEL (2-64 mm) [9 pts]	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
<pre></pre>	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 8'/0.2' AVERAGE BANKFULL WIDTH (meters): 2.44	20
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Open Pasture Row Crr	p
Narrow <5m Residential, Park, New Field Mining or Construction	•
COMMENTS COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS Solution (Interstitution)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 2.0 3.0 3.0 5 1.5 2.5 3	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S035e
	mpleted QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
	tance from Evaluated Stream
	ance from Evaluated Stream
	ance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA	A. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map Page:	NRCS Soil Map Stream Order
County: Monroe Township / City: Bloomington	1
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation: 09/29/11	Quantity: 0.02
Photograph Information:	
Elevated Turbidity? (Y/N):N Canopy (% open):80%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and att	ach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOT	•
ID number. Include appropriate field data sheets from the Primary F Fish Observed? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vou	
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed?	oucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REAC	H (This must be completed):
Include important landmarks and other features of interest for site evaluation and a na	irrative description of the stream's location



See Stream Assessment Form S5-S035e for site topographic map, aerial photograph, and resource photographs





Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Stout CreekSection:29Quarter:SWTownship:T9N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120202010
 OHWM Width:
 3.0 feet

Channelized/Type: Yes/Dump Rock Gutter OHWM Depth: 0.5 feet USCOE Jurisdiction: No Evaluation Type: HHEI IDEM Jurisdiction: No

Evaluation Score: 13 Watershed Area: 0.24 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1766503 ft **UTMN**: 14230300 ft

Stream S5-S036_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	0	0.00	0.00	
5	36	0.01	0.01	
6	0	0.00	0.00	
7	0	0.00	0.00	
8	0	0.00	0.00	
RPA 8	0	0.00	0.00	

Description of Potential Impact:

Impacts to S5-S036_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter located within existing INDOT ROW. There is a wide riparian buffer along the left bank and no riparian buffer associated with this artificial channel's right bank. The floodplain consists of INDOT ROW on the right bank and immature forest on the left. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S036_1 are on the second page of this form.



Photograph Taken Upstream



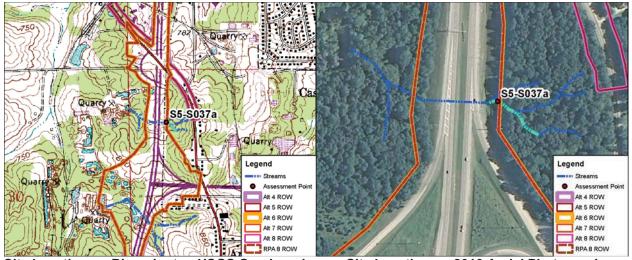
Photograph Taken Downstream



13

SITE NAME/LOCATION I-69 Section 5	\Box
SITE NUMBER S5-S036_1 RIVER BASIN White River DRAINAGE AREA (mi²) 0.01	
LENGTH OF STREAM REACH (ft) 200 LAT. LONG. RIVER CODE RIVER MILE	
DATE 10/11/11 SCORER DEW/KSS COMMENTS Dump Rock Gutter (Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions	s
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS:	
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT HH Met	
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	nts
BOULDER (>256 mm) [16 pts]	trat
COBBLE (65-256 mm) [12 pts]	= 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ 0 % ☐ 0	
SAND (<2 mm) [6 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B) A + I	В
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	-
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	= 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 3'/.5' AVERAGE BANKFULL WIDTH (meters): 0.91	
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ Wide >10m ✓ Mature Forest, Wetland ✓ Urban or Industrial	
Field Field	
Open Pasture Row Crop	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS	
None Fenced Pasture Mining or Construction COMMENTS	
Narrow <5m Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS One Fenced Pasture Mining or Construction Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Residential, Park, New Field Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Check ONLY one box): 2.0 3.0	
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Residential, Park, New Field Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Check ONLY one box): 2.0 3.0	

				S5-S036 1
ADDITIONAL STRE	AM INFORMATION (This Information I	Must Also be Completed):		23 2030_1
QHEI PEF	RFORMED? - Yes V No QHEI So	ore (If Yes, Atta	ach Completed QHEI Form)	
DOWNST	REAM DESIGNATED USE(S)			
WWH Name: St	tout Crook		Distance from Evaluated Stream	am
CWH Name:			Distance from Evaluated Strea	
EWH Name:			Distance from Evaluated Strea	ım _
MAPPING	3: ATTACH COPIES OF MAPS, INCLUDIN	G THE <u>ENTIRE</u> WATERSHED	AREA. CLEARLY MARK THE S	ITE LOCATION
USGS Quadrangle N	Name: Bloomington	NRCS Soil Map P	Page: NRCS Soil Map S	tream Order
County: Monroe		Township / City: Bloom	ington	
MISCELL	ANEOUS			
Base Flow Condition	ns? (Y/N):_Y Date of last precipita	ation:	Quantity:	
Photograph Informa	tion:			
Elevated Turbidity?		50%		
Were samples colle	cted for water chemistry? (Y/N): N	(Note lab sample no. or id. a	and attach results) Lab Number:_	
Field Measures:	Temp (°C) Dissolved Oxygen (n	ng/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling read	th representative of the stream (Y/N)	If not, please explain:		
Additional comment	s/description of pollution impacts:			
BIOTIC E	EVALUATION			
Performed? (Y/N): _	N (If Yes, Record all observations	s. Voucher collections optional	I. NOTE: all voucher samples mus	t be labeled with the site
, , _		·	imary Headwater Habitat Assessme	
Fish Observed? (Y/I	N) N Voucher? (Y/N) N Salam	nanders Observed? (Y/N)	Voucher? (Y/N)	N
Frogs or Tadpoles C	Observed? (Y/N) N Voucher? (Y/N) N	Aquatic Macroinvertebrat	tes Observed? (Y/N) N Vouch	her? (Y/N)
Comments Regarding	ng Biology:			
			-	
DRAV	VING AND NARRATIVE DESCR	IPTION OF STREAM R	REACH (This must be con	npleted):
Include impo	rtant landmarks and other features of ir	nterest for site evaluation an	nd a narrative description of the	stream's location
•	See Stream Assessmen	nt Form		
FLOW	S5-S036_1 for site t	opographic map),	
	aerial photograph, a			



Site Location on Bloomington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Stout CreekSection:29Quarter:NWTownship:T9N

Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 2.6 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes

Evaluation Score: 17 **Watershed Area:** 0.02 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Silt/leaf pack

UTME: 1766503 ft **UTMN**: 14230300 ft

Stream S5-S037a– Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	59	0.01	0.00
5	61	0.01	0.00
6	61	0.01	0.00
7	61	0.01	0.00
8	61	0.01	0.00
RPA 8	61	0.01	0.00

Description of Potential Impact:

Impacts to S5-S037a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate is predominately silt and leaf pack. There is a wide riparian buffer associated with this stream. The floodplain consists of mature forests on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S037a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



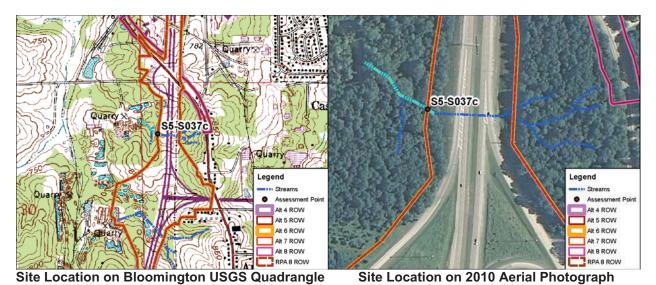
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER S5-S037a RIVER BASIN White River DRAINAGE AREA (mi²)	.02	
LENGTH OF STREAM REACH (ft) 200 LAT. 39.19064 LONG. RIVER CODE RIVER MILE		
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.55402) (Natural-Class I)		
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions	
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY	
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri	
BLDR SLABS [16 pts]	Points	
BOULDER (>256 mm) [16 pts]	Substrat	
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 5%	Max = 40	
GRAVEL (2-64 mm) [9 pts]	12	
Oracle (*2 min) [e pto]		
Total of Percentages of S.00% (A) Substrate Percentage Check (B)	A + B	
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 6		
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep	
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3	
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]		
> 10 - 22.5 cm [25 pts]	0	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0		
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Max=30	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW 2.6'/0.5' AVERAGE BANKFULL WIDTH (meters): 0.79	5	
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆		
RIPARIAN WIDTH FLOODPLAIN QUALITY		
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage		
L R (Per Bank) V Wide >10m Moderate 5-10m L R (Most Predominant per Bank) L R Most Predominant per Bank) L R Most Predominant per Bank) L R Conservation Tillage		
L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) L R Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial	qı	
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m L R (Most Predominant per Bank) L R (Most P	qc	
L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) L R Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial	qc -	
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None L R (Most Predominant per Bank) L R (-	
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Check ONLY one box): Stream Flowing L R (Most Predominant per Bank) L R (Most Predomina	-	
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Check ONLY one box): Stream Flowing L R (Most Predominant per Bank) L R (Most Predomina	-	
L R (Per Bank) V Wide >10m Moderate 5-10m Narrow <5m None COMMENTS Field Field Residential, Park, New Field Field Open Pasture, Row Cro Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) L R (Most Predominant per Bank) Narrow (Figure per Bank) Nar	-	
L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) Wide >10m Auture Forest, Wetland Conservation L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Conservation Tillage Urban or Industrial Open Pasture, Row Cre Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Check ONLY one box): None 3.0	-	
L R (Per Bank) Vide >10m Vide >10m Vide Mature Forest, Wetland Wide >10m Moderate 5-10m Moderate 5-10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	-	
L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) Wide >10m Auture Forest, Wetland Conservation L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Conservation Tillage Urban or Industrial Open Pasture, Row Cre Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Check ONLY one box): None 3.0	-) <u> </u>	

ADDITIONAL STREAM INFORMATION (This Information Mu	S5-S037a
QHEI PERFORMED? - Yes V No QHEI Score	e (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Stout Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe	Township / City: Bloomington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last precipitation	on: 05/12/06 Quantity: 0.39
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open):	25%
Were samples collected for water chemistry? (Y/N): (N	Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/	/I)pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
N	Verseber cellections entired. NOTE: all resuber complex must be labeled with the site.
· , - · · ·	Voucher collections optional. NOTE: all voucher samples must be labeled with the site ield data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salaman	nders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N	Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIP	TION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of inte	rest for site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S037a for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name:Unnamed Trib. Stout CreekSection:29Quarter:NWTownship:T9NPance:P1WIDEM 303(d) List:N/A

Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 2.6 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes

Evaluation Score: 17 Watershed Area: 0.02 sq mi
Legal Drain (Y/N): N Predominant Sub: Silt/leaf pack

UTME: 1766340 ft **UTMN**: 14232372 ft

Stream S5-S037c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	41	0.01	0.18
5	41	0.01	0.18
6	41	0.01	0.18
7	41	0.01	0.18
8	41	0.01	0.18
RPA 8	41	0.01	0.18

Description of Potential Impact:

Impacts to S5-S037c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate is predominately silt and leaf pack. There is a wide riparian buffer associated with this stream. The floodplain consists of mature forests on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S037c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S037c RIVER BASIN White River DRAINAGE AREA (mi²)	.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.19072 LONG. RIVER CODE RIVER MILE	
DATE 05/12/06 SCORER A Rogers COMMENTS (Long: -86.55556) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 5%	Max = 4
GRAVEL (2-64 mm) [9 pts]	12
Oracle (*2 mini) [e plo]	
Total of Percentages of S.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (-3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 2.6'/0.5' AVERAGE BANKFULL WIDTH (meters): 0.79	5
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field	
Open Pasture, Row Cru	OD
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	op
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS	op -
None Fenced Pasture Mining or Construction COMMENTS	op -
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.0 Mining or Construction Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) Check ONLY one box): 3.0	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 0.5 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	-
None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.0 Mining or Construction Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) Check ONLY one box): 3.0	-) <u> </u>

ADDITIONAL STREAM INFORMATION (This Information Must Als	so be Completed):
QHEI PERFORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Stout Creek	Distance from Evaluated Stream
CWH Name:	_ Distance from Evaluated Stream _
EWH Name:	Distance from Evaluated Stream
	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington	NRCS Soil Map Page: NRCS Soil Map Stream Order NRCS Soil Map Stream Order
County: Monroe Town	ship / City: Bloomington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:	05/12/06 Quantity: 0.39
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 25	%
Were samples collected for water chemistry? (Y/N): (Note la	ab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If no	t, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
N	er collections optional. NOTE: all voucher samples must be labeled with the site
· / - · · ·	ta sheets from the Primary Headwater Habitat Assessment Manual)
	Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	N VSGS/611 (17/4)
DRAWING AND NARRATIVE DESCRIPTION	N OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest f	or site evaluation and a narrative description of the stream's location
See Stream Assessment F	orm
FLOW S5-S037c for site topog	raphic map,
aerial photograph, and	

